SAMSUNG

User Manual

Memory Camcorder

www.samsung.com/register

SMX-C20BP/SMX-C20RP/SMX-C20LP/SMX-C20UP
SMX-C24BP/SMX-C24RP/SMX-C24LP/SMX-C24UP
SMX-C200BP/SMX-C200RP/SMX-C200LP/SMX-C200UP

key features of your memory camcorder

High-resolution Colour Widescreen LCD (2.7” WIDE TFT LCD)

Samsung memory camcorder utilises a 2.7-inch 230k pixel Widescreen LCD which allows bright and clear monitoring. In addition, the LCD Enhancer adjusts colour and brightness to the screen lighting conditions for better monitoring under strong sunlight.

Shooting Custom Scenes

In Smart Auto mode, you can record more easily and conveniently in high quality, without having to set recording mode individually according to the recording situation.

H.264/AVC (MPEG4 part 10/Advanced Video Coding) Encoding

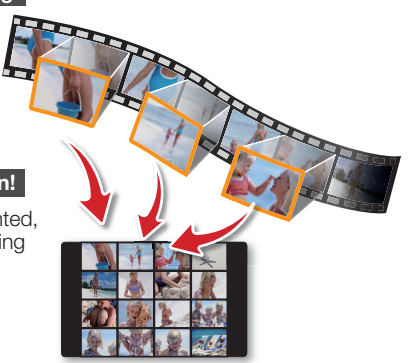
Latest video compression technology, H.264, uses a high compression rate to sharply increase the recordable time with the same size storage.

High quality image through Mobile DNIe

The Samsung memory camcorder has 3DNR (3-dimensional noise reduction), high-sensitivity colour expression (intelligent colour expression), High performance Anti-Shake (Hyper DIS), and automatic face detection features.

Make a digest of your video with Storyboard printing!

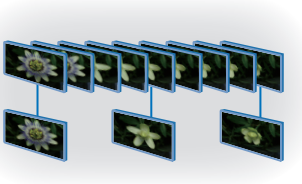
This function captures 16 still images arbitrarily from the selected video and saves them into the storage media. It presents a quick overview of your video, helping you to understand the overall topic.



Make all your recordings with a simple iVIEW button!

This function provides the preview of storyboard to be printed, which gives you digest of the recorded video without viewing the whole sequence of it.

Time Lapse Recording Catches the Moment

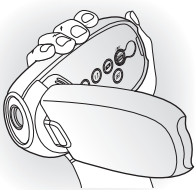


You can record a long scene in short intervals.
Record artistic, documentary videos including the passage of clouds, blooming flowers etc. Use this function to make share videos, educational programmes or for other purposes.

Twice the memory options 16GB (SMX-C24 only)

The memory camcorder's external memory slot accepts high capacity SDHC cards.
In addition to this slot, the memory camcorder has a built-in high capacity flash memory that allows you to record videos (or photos). Play and transfer videos quickly and easily using the memory type of your choice.

Comfortable, Ergonomic Design



This camcorder is designed for comfort when making long recordings.
With this ergonomic design, you can shoot subjects comfortably from any position.

Direct upload of your videos to the Web!

The built-in editing software Intelli-studio installs directly from this camcorder to your PC, when you simply connect your camcorder to a PC via USB cable. Intelli-studio also allows direct uploading of your contents to YouTube or Flickr and Facebook.
Sharing the contents with your friends is simpler than ever before.

Direct Uploading Your Recordings with easy Sharing button

This method uses the software built in your camcorder to upload your recordings to the website such as the YouTube with a simple operation.

before reading this user manual

SAFETY WARNINGS

What the icons and signs in this user manual mean;

WARNING	Death or risk of serious personal injury.
CAUTION	Potential risk of personal injury or material damage.
CAUTION	To reduce the risk of fire, explosion, electric shock, or personal injury when using your camcorder, follow these basic safety precautions:
	Hints or referential pages that may be helpful when operating the camcorder.

These warning signs are here to prevent injury to you and others.
Please follow them explicitly. After reading this section, keep it in a safe place for future reference.

PRECAUTIONS

Warning!

- This camcorder should always be connected to an AC outlet with a protective grounding connection.
- Batteries should not be exposed to excessive heat such as sunshine, fire or similar.

Caution

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily accessible.

Important information on use

Before using this camcorder

- **This camcorder is designed exclusively for use with the high-capacity built-in flash memory 16GB (SMX-C24 only) and an external memory card.**
- **This camcorder records video in H.264/ AVC (MPEG4 part 10/Advanced Video Coding) format compliant with the Standard resolution (SD-VIDEO) format.**
- **Please note that this camcorder is not compatible with other digital video formats.**
- **Before recording important video, make a trial recording.**
  - Play back your trial recording to make sure the video and audio have been recorded properly.
- **The recorded contents cannot be compensated for:**
  - Samsung cannot compensate for any damages caused when recording is not made normally or recorded contents cannot be played back because of a defect in the camcorder or memory card. Also, Samsung cannot be held responsible for your recorded video and audio.
  - Recorded contents may be lost due to an error when handling this camcorder or memory card, etc. Samsung shall not be held responsible for the loss of recorded contents, and cannot compensate for any damages.
- **Make a backup of important recorded data.**
  - Protect your important recorded data by copying the files to a PC. We recommend copying the data to your PC or other recording media for storage. Refer to the software installation and USB connection guide.
- **Copyright: Please note that this camcorder is intended for consumer use only.**
  - Data recorded on a card in this camcorder from other digital/analogue media or devices is protected by the copyright act and cannot be used without permission of the copyright owner except for personal enjoyment. Even if you record an event such as a show, performance or exhibition for personal enjoyment, it is strongly recommended that you obtain permission beforehand.

Important notes

- **Handle the liquid crystal display (LCD) with care:**
  - The LCD is a very delicate display device: Do not press its surface with excessive force, hit it or prick it with a sharp object.
  - If you push the LCD surface, display unevenness may occur. If unevenness does not disappear, turn the camcorder off, wait for a few moments, and then turn it on again.
  - Do not place the camcorder with the open LCD screen down.
  - Close the LCD monitor when not using the camcorder.
- **Liquid crystal display:**
  - The LCD screen is a product of high precision technology. Out of the total pixels (approx. 230,000 pixels of an LCD monitor), 0.01% or less pixels may be out (black dots) or may remain lit as coloured dots (red, blue, and green). This shows the limitations of the current technology, and does not indicate a fault that will interfere with recording.
  - The LCD screen will be slightly dimmer than usual when the camcorder is at low temperature, as in cold areas, or right after the power is turned on. Normal brightness will be restored when the temperature inside the camcorder rises. Note that this will have no effect on the image in a storage media, so there is no cause for concern.
- **Hold the camcorder correctly:**
  - Do not hold the camcorder by the LCD monitor when lifting it: the LCD monitor could detach and the camcorder may fall.

Important information on use

- **Do not subject the camcorder to impact:**
  - This camcorder is a precision machine. Take great care that you do not strike it against a hard object or let it fall.
  - Do not use the camcorder on a tripod in a place where it is subject to severe vibrations or impact.
- **No sand or dust!**
  - Fine sand or dust entering the camcorder or AC power adaptor could cause malfunctions or defects.
- **No water or oil!**
  - Water or oil entering the camcorder or AC power adaptor could cause electric shock, malfunctions or defects.
- **Heat on surface of product:**
  - The surface of the camcorder will be slightly warm when used, but this does not indicate a fault.
- **Be careful of unusual ambient temperature:**
  - Using the camcorder in a place where the temperature is over 104°F (40°C) or lower than 32°F (0°C) may result in abnormal recording/playback.
  - Do not leave the camcorder on a beach or in a closed vehicle where the temperature is very high for a long time: This could cause a malfunction.
- **Do not point directly at the sun:**
  - If direct sunlight strikes the lens, the camcorder could malfunction or a fire could occur.
  - Do not leave the camcorder with the LCD screen exposed to direct sunlight: This could cause a malfunction.
- **Do not use the camcorder near TV or radio:**
  - This could cause noise to appear on the TV screen or in radio broadcasts.
- **Do not use the camcorder near strong radio waves or magnetism:**
  - If the camcorder is used near strong radio waves or magnetism, such as near a radio transmitter tower or electric appliances, noise could enter video and audio that are being recorded. During playback of normally recorded video and audio, noise may also be present in picture and sound.
- **Do not expose the camcorder to soot or steam:**
  - Thick soot or steam could damage the camcorder case or cause a malfunction.
- **Do not use the camcorder near corrosive gas:**
  - If the camcorder is used in a place where there is dense exhaust gas generated by gasoline or diesel engines, or corrosive gas such as hydrogen sulphide, the external or internal terminals could corrode, disabling normal operation, or the battery connection terminals could corrode, so that power will not turn on.
- **Do not use the camcorder near an ultrasonic humidifier:**
  - Calcium and other chemicals dissolved in water could scatter in the air, and white particles could adhere to the optical head of the camcorder, which could cause it to operate abnormally.
- **Do not clean the camcorder body with benzene or thinner:**
  - The coating of exterior could peel off or the case surface could deteriorate.
  - When using a chemical cleaning cloth, follow the instructions.
- **Keep the memory card out of reach of children to prevent swallowing.**
- **To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily accessible.**

About this user manual

- Thank you for purchasing this Samsung Camcorder. Please read this user manual carefully before you use the camcorder and keep it handy for future reference. Should your camcorder fail to operate correctly, refer to Troubleshooting.
- The SMX-C24 has a 16GB built in flash memory, but can also be used with memory cards. The SMX-C20, SMX-C200 does not have built-in flash memory and uses memory cards exclusively. Although some features of SMX-C20, SMX-C24 and SMX-C200 are different, they operate in the same way.
- Illustrations of model SMX-C20 are used in this user manual.
- The displays in this user manual may not be exactly the same as those you see on the LCD screen.
- Designs and specifications of storage media and other accessories are subject to change without any notice.
- Descriptions of the "built-in memory" in this user manual apply only to the following model: SMX-C24
- For Open Source Licence information, refer to the "OpenSourceInfo.pdf" in the provided CD-ROM.

Notes regarding trademarks

- All the trade names and registered trademarks mentioned in this manual or other documentation provided with your Samsung product are trademarks or registered trademarks of their respective holders.
- Windows® is registered trademark or trademark of Microsoft Corporation, registered in the United States and other countries.
- Macintosh is trademark of Apple Inc.
- YouTube® is a trademark of Google Inc.
- Flickr® is a trademark of Yahoo.
- Facebook® is a trademark of Facebook Inc.
- All the other product names mentioned herein may be the trademark or registered trademarks of their respective companies.
- Furthermore, "TM" and "®" are not mentioned in each case in this manual.

Correct disposal of batteries in this product

(Applicable in the European Union and other European countries with separate battery return systems)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66.

If batteries are not properly disposed of, these substances can cause harm to human health or the environment. To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life.

To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

safety information

The safety precautions illustrated below are to prevent personal injury or material damage. Heed all instructions carefully.

WARNING
Death or risk of serious personal injury.

CAUTION
Means that there is a potential risk of personal injury or material damage.

Prohibited action.

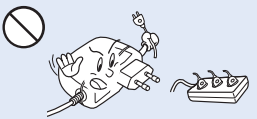
Do not disassemble product.

Unplug from power supply.

Do not touch product.

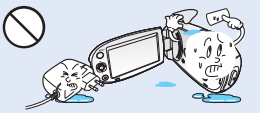
This precaution must be kept.

WARNING

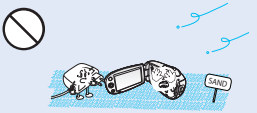


Do not overload outlets or extension cords as this may result in abnormal heat or fire.

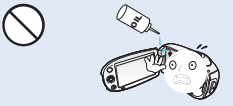
Using the camcorder at temperatures over 140°F (60°C) may result in fire. Keeping the battery at a high temperature may cause an explosion.



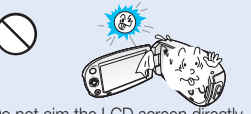
Do not allow water or metal and inflammable matter to enter the camcorder or AC power adaptor. Doing so may pose a fire hazard.



No sand or dust! Fine sand or dust entering the camcorder or AC power adaptor could cause malfunctions or defects.



No oil! Oil entering the camcorder or AC power adaptor could cause electric shock, malfunctions or defects.



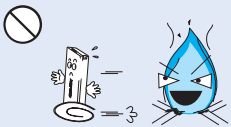
Do not aim the LCD screen directly into the sun. Doing so could cause eye injuries, as well as lead to malfunctioning of internal parts of the product.

Do not bend the power-cord or damage the AC power adaptor by pressing on it with a heavy object. There may be a risk of fire or electric shock.

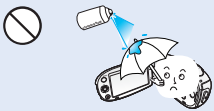
Do not disconnect the AC adaptor by pulling on its power-cord, as this could damage the power-cord.

Do not use the AC adaptor if it has damaged, split or broken cords or wires. Doing so may cause fire or electric shock.

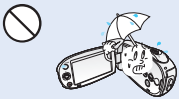
Do not connect the AC adaptor unless the plug can be fully inserted with no part of the blades exposed.



Do not dispose of battery pack in a fire as it may explode.

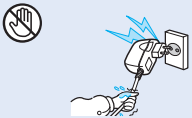


Never use cleaning fluid or similar chemicals. Do not spray cleaners directly on the camcorder.



Keep the camcorder away from water when used near the beach or pool or when it rains. There is a risk of malfunction or electric shock.

Keep the used lithium battery or memory card out of the reach of children. If the lithium battery or memory card is swallowed by children, consult a physician immediately.

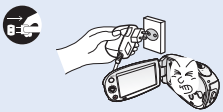


Do not plug or unplug the power cord with wet hands. There is a risk of electric shock.

Keep the power-cord unplugged when not in use or during lightning storms to prevent fire hazard.

When cleaning the AC adaptor, unplug the power-cord to avoid a risk of a malfunction or electric shock.

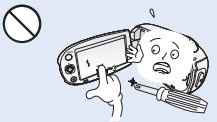
If the camcorder makes an abnormal sound, or smells or smokes, unplug the power-cord immediately and request service from a Samsung service centre. There is a risk of fire or personal injury.



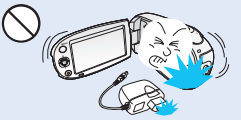
If the camcorder malfunctions, immediately detach the AC adaptor or battery from the camcorder immediately to avoid fire or injury.

Do not attempt to disassemble, repair, or reform the camcorder or the AC adaptor to avoid a risk of fire or electric shock.

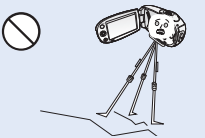
CAUTION



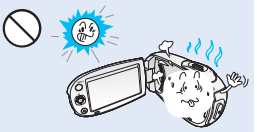
Do not press the surface of the LCD with force, or hit it with a sharp object. If you push the LCD surface, display unevenness may occur.



Do not drop or expose the camcorder, battery pack, AC adaptor or other accessories to severe vibrations or impact. This may cause a malfunction or injury.

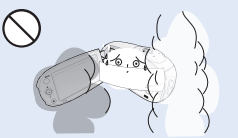


Do not use the camcorder on a tripod (not supplied) in a place where it is subject to severe vibrations or impact.



Do not use the camcorder near direct sunlight or heating equipment. This may cause a malfunction or injury.

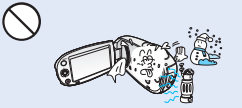
Do not leave the camcorder in a closed vehicle where the temperature is very high for a long time.



Do not expose the camcorder to soot or steam. Thick soot or steam could damage the camcorder case or cause a malfunction.

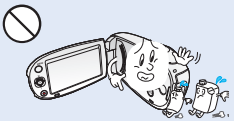
Do not use the camcorder near dense exhaust gas generated by gasoline or diesel engines, or corrosive gas such as hydrogen sulphide. Doing so may corrode the external or internal terminals, disabling normal operation.

Do not expose the camcorder to insecticide. Insecticide entering the camcorder could cause the product to operate abnormally. Turn the camcorder off and cover it with vinyl sheet, etc. before using insecticide.

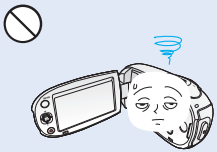


Do not expose the camcorder to sudden changes in temperature or a humid places. There is also a risk of defect or electric shock when using outdoors during lightning storms.

Do not place the camcorder with the open LCD screen down.



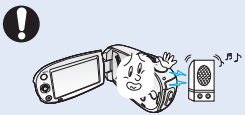
Do not wipe the camcorder body with benzene or thinner. The exterior coating could peel off or the case surface could deteriorate.



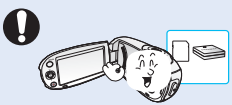
Do not leave the LCD monitor open when not using the camcorder.

Do not hold the camcorder by the LCD monitor when lifting it. The LCD monitor could detach and the camcorder may fall.

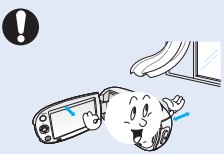
Do not use the camcorder near TV or radio. This could cause noise on the TV screen or to radio broadcasts.



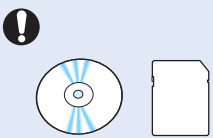
Do not use the camcorder near strong radio waves or magnetism such as speakers or large motors. Noise could enter video or audio that are being recorded.



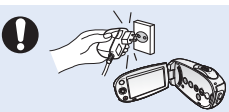
Use Samsung-approved accessories only. Using products from other manufacturers may cause overheating, fire, explosion, electric shock or personal injuries due to abnormal operation.



Place the camcorder on a stable surface and a place with ventilation openings.



Keep important data separately. Samsung is not responsible for data loss.



Use the mains plug where it can be readily operable. If any problem occurs with the product, the mains plug must be removed to disconnect power completely. Turning off the power button on the product does not completely disconnect the power.

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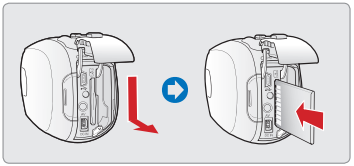
quick start guide

✪ This quick start guide introduces the basic operation and features of your camcorder.
See the reference pages for more information.

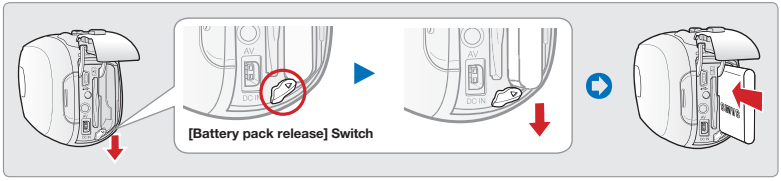
You can record videos in H.264 format!

You can record videos in H.264 format, which enables you to conveniently email and share videos with your friends and family. You can also take photos with your camcorder.

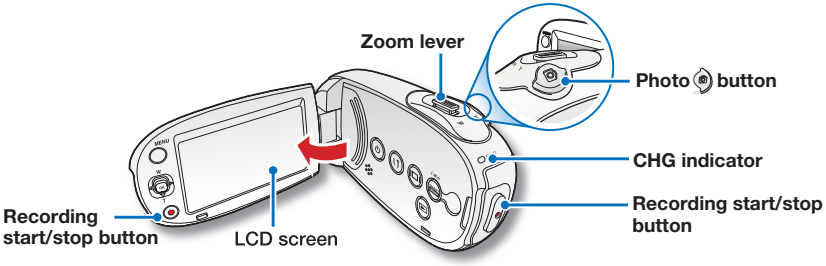
STEP1: Get ready



1. Insert a memory card. ➥page 31
   - You can use commercially available SDHC (SD High Capacity) or SD memory cards with this camcorder.
   - Set the appropriate storage media. (SMX-C24 only)
2. Insert the battery into the battery slot. ➥page 14
   - Gently slide the **Battery pack release** switch in the direction as shown in the diagram.
3. Charge the battery fully. ➥page 15
   - The battery is fully charged when the CHG (charging) indicator light turns green.



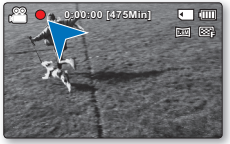
STEP2: Record with your camcorder



Recording videos with H.264 format

Your camcorder uses advanced H.264 compression technology to realise the clearest video quality. ➥page 46

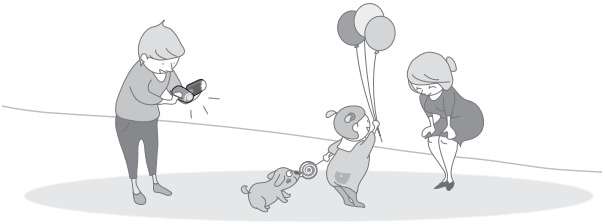
1. Open the LCD screen.
2. Press the **Power** button.
3. Press the **Recording start/stop** button.
   - To stop recording, press the **Recording start/stop** button.



Recording photos

Captures a moving subject instantly and saves the scene as a photo image.

1. Open the LCD screen.
2. Press the **Power** button.
3. Press the **Photo** button fully when you are ready.



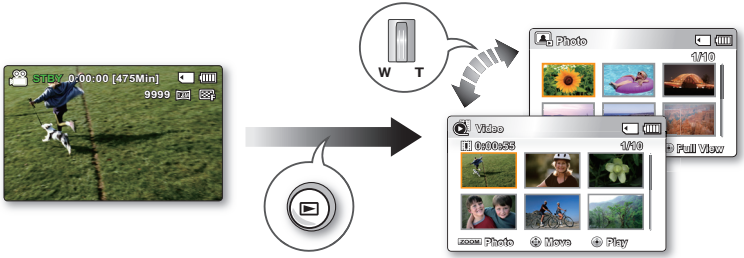
- Your camcorder is compatible with H.264 recording format, which achieves efficient coding of high quality video with less capacity.
- You can record videos in SD (standard definition). The default setting is **"TV Fine (720x576/50i)"**. ➥page 46
- You can not take photos while you are recording videos.

STEP3: Play back videos or photos

Viewing the LCD screen of your camcorder

You can find your desired recordings quickly by using the thumbnail index view.

1. Press the **Mode** button to select the Play mode.
   - The thumbnail index view appears. The thumbnail of the latest created or played file is highlighted.
2. Select the Video or Photo thumbnail index view screen.
   - You can simply switch between video and photo thumbnail view using the zoom lever.
3. Use the **Control** button (▲/▼/◀ / ▶) to select a desired video or photo, and then press the **Control** button **(OK)**.



Viewing on a TV

You can enjoy detailed, brilliant quality videos on a connected TV. ➥page 95

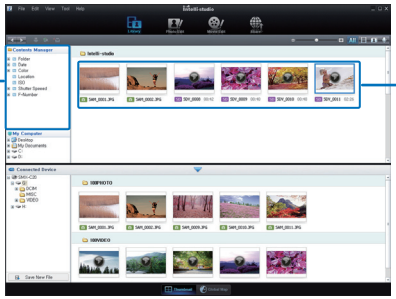
STEP4: Save recorded videos or photos

Simple and fun! Enjoy the various features of Intelli-studio on your Windows computer.

Using the Intelli-studio programme built in your camcorder, you can import videos/photos into your computer, edit or share the videos/photos with your friends. For details, see page 84.

Viewing the videos/photos from your PC

1. Launch the Intelli-studio program by connecting the camcorder to your PC via the USB cable.
   - A new file saving screen appears with the Intelli-studio main window. Click **"Yes"**, the uploading procedure will start.
2. The new files are saved to your PC and registered to **"Contents Manager"** on the Intelli-studio programme.
   - You can arrange the files by different options such as Face, Date, Location, etc.
3. You can double-click on the file you would like to start playing.



Sharing videos/photos on YouTube/Flickr/Facebook

Share your contents with the world, by uploading photos and videos directly to a web site with a single click. Click on the **"Share** **"** → **"Upload"** tab on the browser.
➥page 89

The Intelli-studio runs automatically once the camcorder is connected to a Windows computer (when you specify **"PC Software: On"**). ➥page 81

STEP5: Delete videos or photos

If the storage media is full, you cannot record new videos or photos. Delete videos or photos data that have been saved on a computer from the storage media. Then you can record new videos or photos on newly freed-up space.

Press the Mode button to select the Play mode → Press the MENU button → Control button (▲ /▼ / ◄ / ►/OK) to select "Delete." **➥page 60**

WHAT'S INCLUDED WITH YOUR CAMCORDER

Your new camcorder comes with the following accessories. If any of these items are missing from your box, call Samsung's Customer Care Centre.

Model name	Colour	Built-in memory	Memory card slot	LCD screen	Lens
SMX-C20BP/C200BP	Black	-	1 slot	colour	10x (Optical), 1200x (Digital)
SMX-C20RP/C200RP	Red	-			
SMX-C20LP/C200LP	Blue	-			
SMX-C20UP/C200UP	Purple	-			
SMX-C24BP	Black	16GB			
SMX-C24RP	Red	16GB			
SMX-C24LP	Blue	16GB			
SMX-C24UP	Purple	16GB			

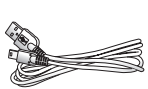
- Although some features of the models are different, they operate in the same way.

Checking your accessories

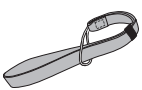
Battery pack (IA-BH130LB)

AC power adaptor (AA-MA9 type)

Audio/Video cable

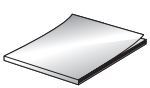


USB cable



Hand strap

User manual CD



Quick start guide

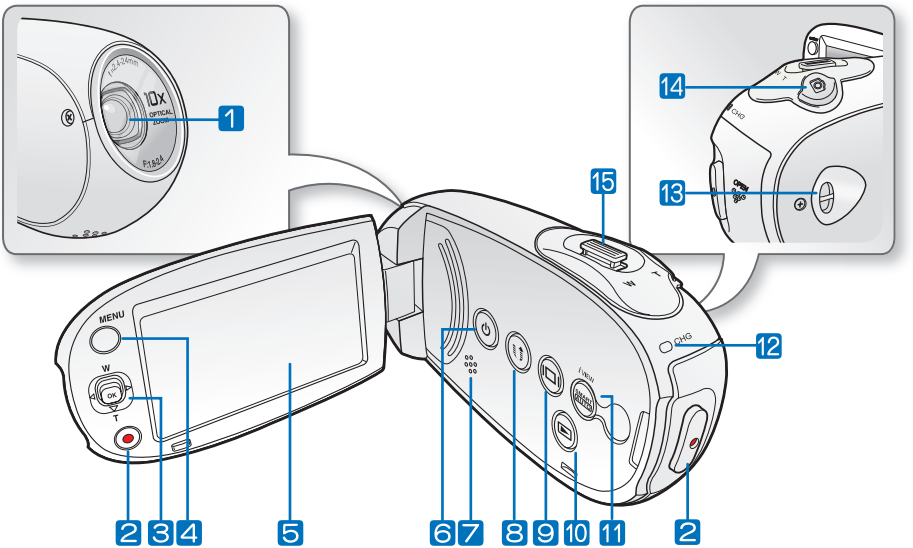
Optional accessories

Carrying case

Memory card

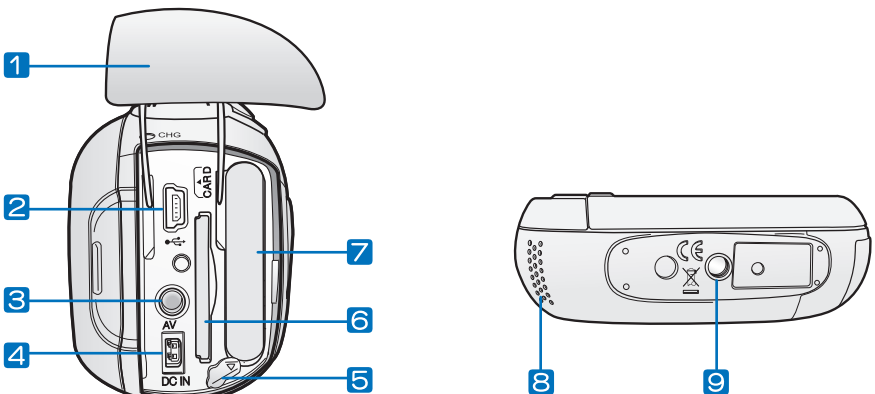
- The contents may vary depending on the sales region.
- Parts and accessories are available for purchase at your local Samsung dealer. SAMSUNG is not responsible for reduced battery life time or malfunctions caused by any unauthorised use of accessories.
- A memory card is not included. See page 32 for memory cards compatible with your camcorder.
- Your camcorder includes a user manual CD and a quick start guide (printed).
- (Optional accessories) : This is an optional accessory. To buy one, contact your nearest Samsung dealer.

FRONT & LEFT VIEW



1	Lens
2	Recording start/stop button
3	Control button (▲/▼/◀/▶/OK), Zoom (W/T) button
4	MENU button
5	LCD screen
6	Power button
7	Built-in speaker
8	Share button
9	Display button
10	Mode button
11	SMART AUTO / iVIEW button
12	Charging indicator (CHG)
13	Hand strap hook
14	Photo button
15	Zoom lever (W/T)

REAR & BOTTOM VIEW



1	Jack/ Battery pack/ Memory card cover
2	USB jack ( )
3	AV jack (AV)
4	DC IN jack (DC IN)
5	Battery pack release switch
6	Memory card slot
7	Battery pack slot
8	Internal microphone
9	Tripod receptacle

Usable Memory Cards (512MB~32GB)

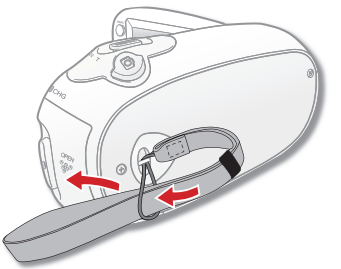
SD/SDHC

Be careful not to cover the internal microphone and lens during recording.

This section provides information that you should know before using this camcorder; such as how to use the provided accessories, how to charge the battery, and how to setup the operation mode and initialise setup.

USING THE HAND STRAP

Attach the strap and place your hand through the loop to prevent the camcorder from damage by being dropped.

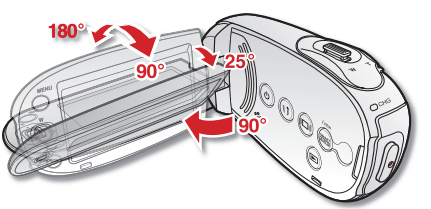


ADJUSTING THE LCD SCREEN

The wide LCD screen on your camcorder offers high quality image viewing.

1. Open the LCD screen with your finger.
- The screen opens up to 90°.

2. Rotate the LCD screen towards the lens.
- When you open the LCD, it can be folded up to 25° to make parallel with the lens.
- You can rotate it up to 180° towards the lens and up to 90° backward.
  To view recordings more conveniently, rotate the screen by 180° towards the lens, then fold it back to the body.



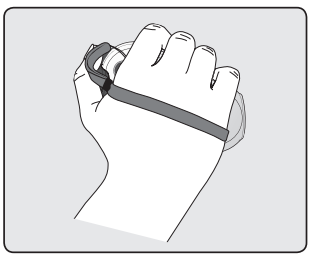
Excessive rotation may damage the connective hinge between the screen and the camcorder.

- Remove fingerprints or dust on the screen with a soft cloth.
- When the LCD screen is rotated by 180° toward the lens, the left and the right sides of the subject are shown in reverse as if you were looking at a mirror. This is not a problem and does not affect the image being recorded.

BASIC CAMCORDER POSITIONING

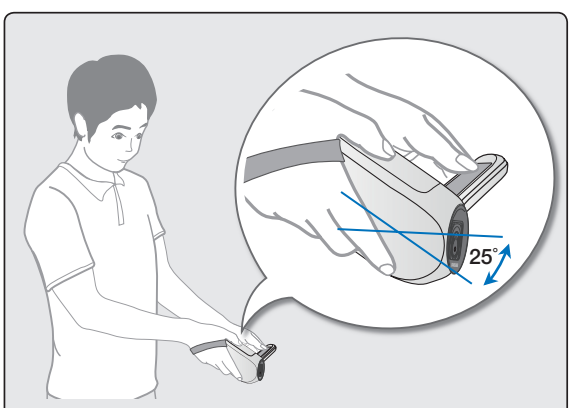
Use both hands while taking a video or picture to prevent the camcorder from shaking.
Try to avoid any slight movement while shooting.

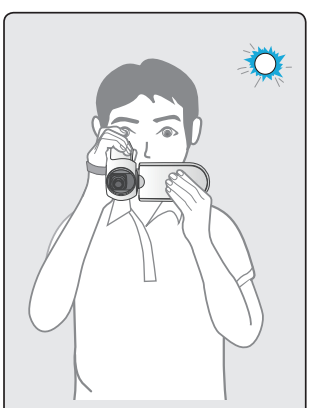
Adjusting the shooting angle



Aim the camcorder as shown in the illustration.

1. Hold the camcorder with your both hands.
2. Hook up the hand strap to fit to hand.
3. Make sure your footing is stable and there is no danger of colliding with another person or object.
4. Aim and focus as shown in the illustration.





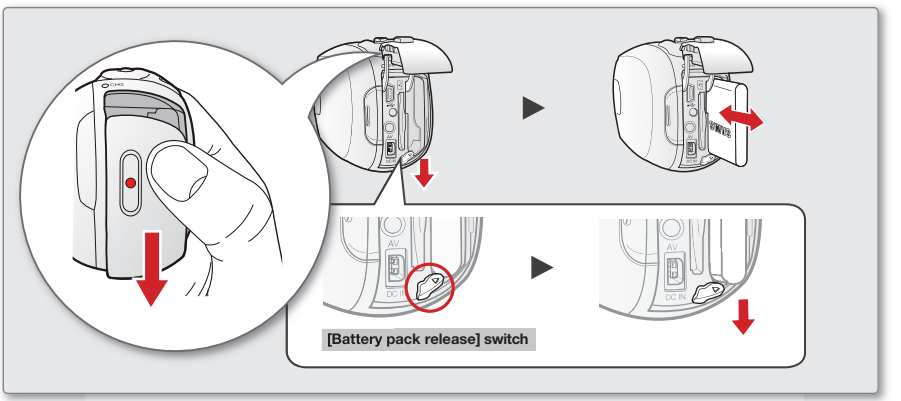
- This camcorder lens shooting angle is approx. 25° higher than the rest of the camcorder body. Make sure the camcorder lens is angled for proper shooting.
- It is recommended to keep the sun behind you while shooting.

CONNECTING A POWER SOURCE

- Be sure to charge the battery pack before you start using your camcorder.
- Use the **IA-BH130LB** battery pack only.
- The battery pack may be charged a little at the time of purchase.

Battery pack insertion/ejection

It is recommended you purchase one or more additional battery packs to allow continuous use of your camcorder.



Inserting the battery pack

1. Slide and open the battery slot cover as shown in the diagram.
2. Insert the battery pack into the battery slot until it locks.
   - Make sure that the SAMSUNG logo is facing left while the battery pack is placed as shown in the diagram.
3. Push the battery cover down until it meets the camcorder body, then slide it up to close.

Ejecting the battery pack

1. Slide and open the battery slot cover and push the **Battery pack release** switch.
   - Gently push the battery pack release switch in the direction as shown in the diagram to eject the battery.
2. Pull the ejected battery out in the direction as shown in the diagram.
3. Push the battery cover down until it meets the camcorder body, then slide it up to close.

- Remove the battery pack separately from the camcorder while not in use.
- It is recommended to prepare an additional battery pack for prolonged outdoor use.
- Contact your nearest Samsung Electronics Service Centre for purchasing additional battery packs.

Charging the battery

You can charge the battery using the AC power adaptor or USB cable.

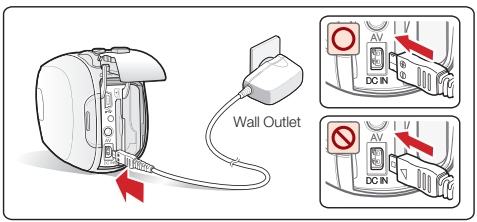
PRECHECK!

- Be sure to charge the battery before you start using your camcorder.
- Use the battery pack and the AC power adapter provided with the camcorder.

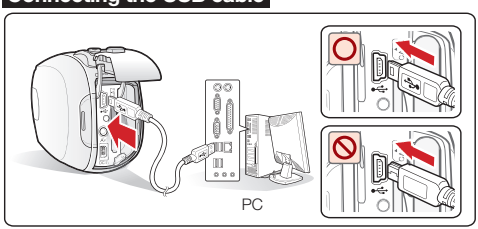
1. Insert the battery in the camcorder. ➥page 14
2. Press the **Power** button to turn off the camcorder.
3. Open the connector cover of the unit.
4. Charge the battery using the **AC power adaptor or USB cable**.
   - The CHG (charge) lamp lights up and charging starts. When the battery is fully charged, the charging (CHG) lamp turns green. ➥page 16
   - Make sure you plug the adaptor cable or USB cable into the camcorder in the proper direction. See the diagram to the right.

Using the AC power adaptor	Connect the AC power adaptor to the camcorder properly and plug the AC power adaptor in the wall outlet.
Using the USB cable	Connect the USB cable to the camcorder properly and connect the other end to a USB port of a PC.

Connecting the AC power adaptor



Connecting the USB cable

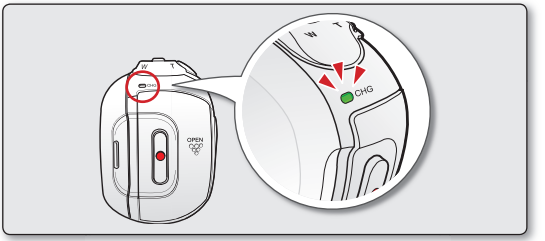


- Charging the battery pack at low temperature may take longer or fail to fully charge (green indicator will not turn on).
- Please make sure that there are no foreign substances in the plug and socket when you connect the AC power supply to the camcorder.
- Fully charge the battery pack before use.
- When using the AC power supply, place it close to the wall outlet. If you experience a malfunction while using the camcorder, separate the AC power supply immediately from the wall outlet.
- Do not use the AC power supply in a tight space, such as between furnishings.

- When recording indoors with an available wall outlet, it is convenient to use the AC power supply instead of the battery pack.
- When charging, if both the USB cable and AC power adaptor are connected, the AC power adaptor will override the USB.
- If the camcorder is turned on, the battery will still charge, but more charging time will be needed. It is recommended you to keep the camcorder turned off while charging.

CHECKING THE BATTERY STATE

You can check the charging state and remaining battery capacity.



Charging (CHG) lamp

The colour of the charging indicator shows the charging state.

Charging state	Charge		
	Charging	Fully Charged	Error
LED Colour	(Orange)	(Green)	(Orange Blink)

Battery Level Display

The Battery Level Display shows the amount of battery power remaining in the battery pack.

Battery level indicator	State	Message
	Fully charged	-
	25%~50% used	-
	50%~75% used	-
	75%~95% used	-
	95%~99% used	-
	Exhausted (flickers): The device will be forced to turn off after 3 minutes. Change the battery pack as soon as possible.	-
-	(flickers): The device will be forced to turn off after 3 seconds.	**"Low battery"**

- If error persists with charging the battery, contact your nearest SAMSUNG authorized service center.
- Before using the camcorder, charge the battery.
- Above figures are based on a fully charged battery pack at normal temperature. Low ambient temperature may affect the use time.

Charging, recording and playback times with fully charged battery pack (with no zoom operation, etc.)

For your reference, the approximate time with fully charged battery pack:

Battery type		IA-BH130LB				
Charging time		Using an AC power adaptor			approx. 2 hr.	
		Using a USB cable			approx. 4 hr.	
Video resolution		720 x 576 (50i)			640 x 480 (25p)	
		TV Super Fine ( )	TV Fine ( )	TV Normal ( )	Web Fine ( )	Web Normal ( )
Mode	Continuous recording time	approx. 160min.				
	Playback time	approx. 180min.				

- The time is only for reference. Figures shown above are measured under Samsung's test environment, and may differ according to user and condition.
- We recommend using the AC power adaptor when using the Time Lapse REC Function.

Continuous Recording (without zoom)

The continuous recording time of the camcorder in the table shows the available recording time when the camcorder is in the recording mode without using any other function after recording starts. When actually recording, the battery pack may discharge 2-3 times faster than this reference, since the record start/stop and zoom functions are being operated, and playback is performed. Prepare additional charged battery pack(s) to allow for the time you are planning to record on the camcorder. Note that the battery pack discharges faster in a cold environment.

The charging time will vary depending on the remaining battery level.

About the battery pack

- The benefits of the battery pack: the Battery pack is small but has a large power capacity. It should be recharged at temperatures between 50°F ~ 86°F (10°C ~ 30°C). However, when it is exposed to cold temperatures (below 32°F (0°C)), its usage time is reduced and it may cease to function. If this happens, place the battery pack in your pocket or any other warm, protected place for a short time, then reattach it to the camcorder.
- Do not put the battery pack near any heat source (i.e. fire or a heater).
- Do not disassemble, apply pressure to, or heat the battery pack.
- Do not allow battery pack terminals to be short-circuited. It may cause leakage, generate heat, or cause fire.

Maintaining the battery pack

- The recording time is affected by temperature and environmental conditions.
- We recommend only using the original battery pack that is available from your Samsung retailer. When the battery reaches the end of its life, please contact your local dealer. The batteries have to be dealt with as chemical waste.
- Make sure that the battery pack is fully charged before starting to record.
- To preserve battery power, keep your camcorder turned off when you are not operating it.
- Even when the power is switched off, the battery pack will still discharge if it is left inserted on the camcorder. If you do not use the camcorder for an extended time period, keep it with the battery completely depleted.
- To save battery power, you can set the **"Auto Power Off"** function, which turns off the camcorder if there is no operation for 5 minutes. To disable this option, change the setting of **"Auto Power Off"** to **"Off"**. ➥page 81
- When not using the camcorder for an extended period: It is recommended that you fully charge the battery pack once every 6 months, attach it to the camcorder and use it up: then remove the battery pack and store it in a cool place.

About the battery life

- Battery capacity decreases over time and through repeated use. If decreased usage time between charges becomes significant, it is probably time to replace it with a new one.
- Each battery's life is governed by storage, operating and environmental conditions.

Using an AC power source

It is recommended that you use the AC power adaptor to power the camcorder from a household AC outlet when you perform settings on it, play back, or use it indoors.
Make the same connections as you do when charging the battery pack. ➥page 15

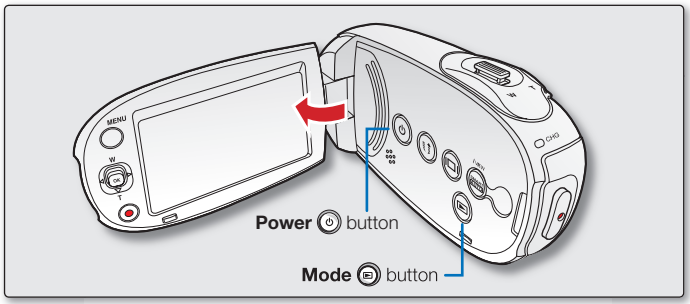
Use only Samsung-approved battery packs.
Do not use batteries from other manufacturers because there is a danger of overheating, fire or explosion. Samsung is not responsible for problems occurring due to using unapproved batteries.

- Before detaching the power source, make sure that the camcorder's power is turned off. Failure to do so can result in camcorder malfunction.
- Use a nearby wall outlet when using the AC power adaptor. Disconnect the AC power adaptor from the wall outlet immediately if any malfunction occurs while using your camcorder.
- Do not use the AC power adaptor in a narrow space, such as between a wall and furniture.

- Be sure to use the specified AC power adaptor to power the camcorder. Using other AC power adaptors could cause electric shock or result in fire.
- The AC power adaptor can be used around the world. An AC plug adaptor is required in some foreign countries. If you need one, purchase it from your distributor.

BASIC OPERATION OF YOUR CAMCORDER

This section explains the basic techniques of recording videos or photos and also basic settings on your camcorder. Set the appropriate operation mode according to your preference using **Power** and **Mode** buttons.



Turning the camcorder on or off

You can turn the power on or off by pressing the **Power** button.

1. Open the LCD screen and press the **Power** button to turn on the camcorder.
2. To turn off the camcorder, press the **Power** button.

Setting the operating modes

You can switch the operating mode in the following order each time you press the **Mode** button: **Record mode** ↔ **Play mode**

Mode	Functions
Record mode	To record videos or photos.
Play mode	To play videos or photos, or edit them.

When using this camcorder for the first time
When you use your camcorder for the first time or reset it, the time zone screen appears for the start-up display. Select your geographical location and set the date and time. ➥page 28
If you do not set the date and time, the time zone screen appears every time you turn on the camcorder.

- This camcorder provides one record mode for both video and photo recordings. You can easily record videos or photos in the same mode without having to switch modes.
- One play mode is also provided for video and photo recordings.
- When the camcorder is turned on, the self-diagnosis function operates and a message may appear. In this case, refer to "Warning indicators and messages" (on pages 100-102) and take corrective action.

SWITCHING TO THE POWER SAVING MODE

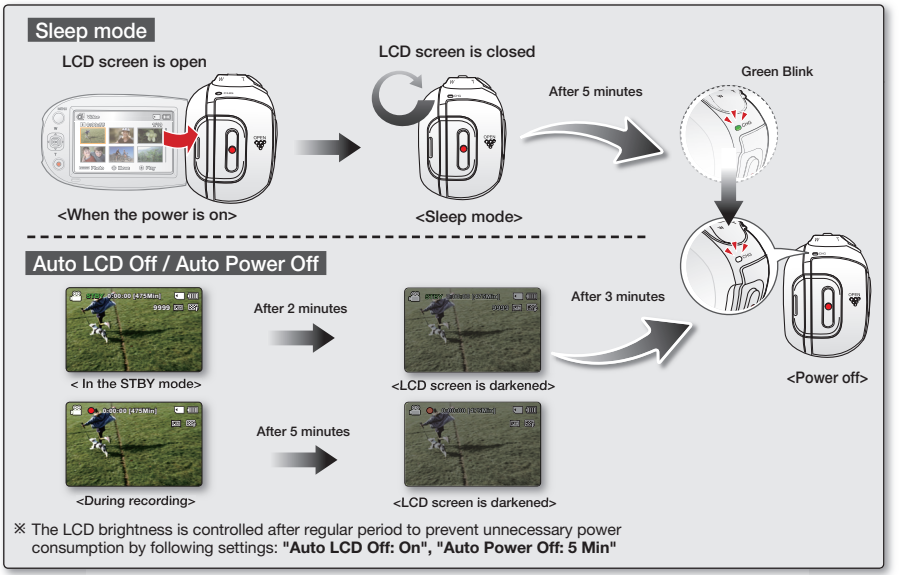
If you need to use camcorder for the extended time, the following functions enable you to prevent unnecessary energy consumption.

In STBY mode:

- The camcorder switches to sleep mode when the LCD screen is closed.

In Playback mode (Includes the thumbnail view mode):

- The camcorder switches to the sleep mode when the LCD screen is closed, and then if idle for more than 5 minutes the camcorder turns off. However, if **"Auto Power Off: 5 Min"** is set, the camcorder turns off after 5 minutes. ➥page 81
- If you open the LCD screen or connect a cable to the camcorder during sleep mode, the sleep mode ends and returns back to the last used operation mode.

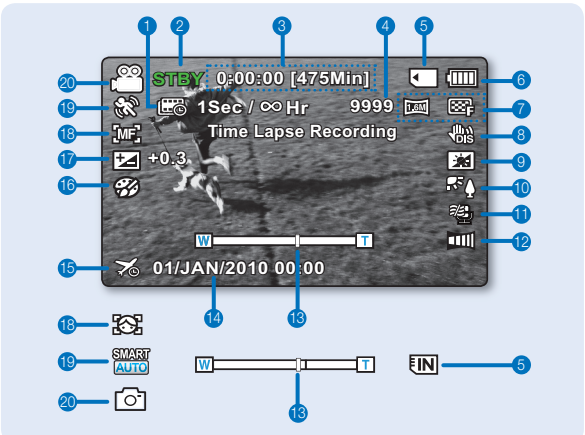


※ The LCD brightness is controlled after regular period to prevent unnecessary power consumption by following settings: **"Auto LCD Off: On", "Auto Power Off: 5 Min"**

- **The power saving mode does not work in the following situations:**
  - When the camcorder has a DC power cable connection. (AC power adaptor, USB cable)
  - While recording, playback, or the slideshow is being operated.
  - When the LCD screen is opened.
- The camcorder consumes the less battery power in the power saving mode (about 50% of the power consumption in the standby mode) However, if you plan to use the camcorder for the maximum length of time period, it is recommended to turn off the camcorder by pressing the **Power** button when not using it.

LCD SCREEN INDICATORS

Video and Photo record mode

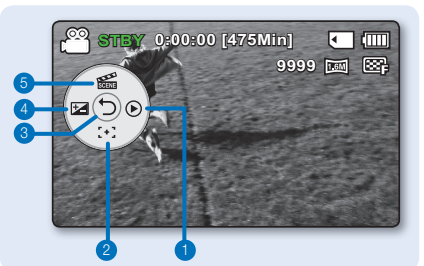


1 Time Lapse REC *
2 Operating mode (STBY (Standby) / ● (Recording))
3 Time counter (video recording time / remaining recordable time)
4 Photo image counter (total number of recordable photos)
5 Storage media (Memory card or built-in memory (SMX-C24 only))
6 Battery info. (Remaining battery level)
7 Photo Resolution / Video Resolution
8 Anti-Shake (HDIS)
9 LCD Enhancer *
10 Back Light
11 Wind Cut
12 Fader *
13 Zoom (Optical zoom / Digital zoom)
14 Date/Time Display
15 Time Zone (Visit)
16 Digital Effect
17 EV (Exposure value)*
18 Manual Focus * / Face Detection *
19 iSCENE / Smart Auto
20 Record mode

- The above screen is an example for explanation: It is different from the actual display.
- The on-screen indicators are based on an 16GB SDHC memory card capacity.
- Functions marked with * will not be kept when the camcorder is turned off and on again.
- For enhanced performance, the display indications and the order are subject to change without prior notice.
- **This camcorder provides one combined video and photo record mode. You can easily record videos or photos in the same mode without having to change it.**
- The total number of recordable photos is counted based on available space on the storage media.

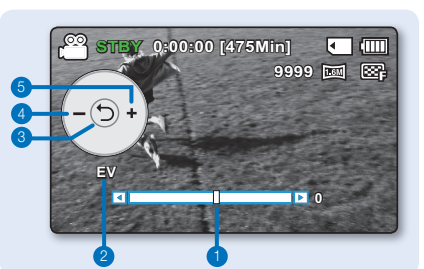
LCD SCREEN INDICATORS

Video and Photo record mode: Shortcut menu (OK Guide)



1 Quick View
2 Focus* (Auto Focus/Face Detection/Manual Focus)
3 Shortcut menu (OK Guide) / Return
4 EV (Exposure value)*
5 iSCENE

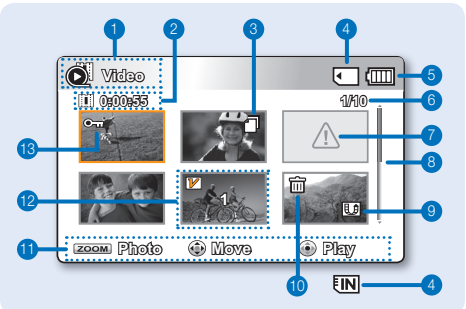
Video and Photo record mode: Shortcut menu (Manual)



1 Manual Control Bar/ Value
2 Menu name
3 Shortcut menu (OK Guide) / Return
4 Value adjust (down)
5 Value adjust (up)

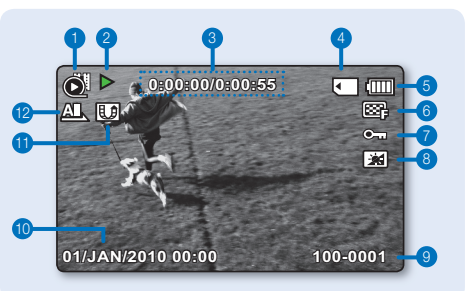
- The illustration above shows the EV (Exposure Value) screen.
- Functions marked with * will not be kept when the camcorder restarts.
- The shortcut menu (OK guide) represents the most frequently accessed functions according to the selected mode. Pressing the **OK** button will display a shortcut menu of frequently used functions on the LCD screen.

Video Play mode : Thumbnail View



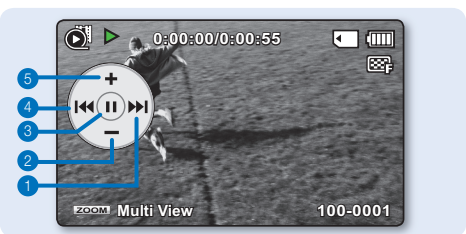
1 Video Play mode
2 Recorded time
3 Copy Selected (SMX-C24 only)
4 Storage media (Memory card or built-in memory (SMX-C24 only))
5 Battery info (Remaining battery level)
6 Now/ Total file number
7 Error File
8 Scroll bar
9 Share mark
10 Delete Selected
11 Button Guide
12 Edit (Combine)
13 Protection

Video Play mode : Single View



1 Video Play mode
2 Play Status (Play (▶) / Pause (❚❚)/ Search playback (◀◀ / ▶▶) / Frame-by-frame playback (◀❚❚ / ❚▶) / Slow motion playback (◀❚❚ / ❚▶))
3 Time code (Elapsed time / Recorded time)
4 Storage media (Memory card or built-in memory (SMX-C24 only))
5 Battery info (Remaining battery level)
6 Video Resolution
7 Protection
8 LCD Enhancer
9 File Name (File number)
10 Date/Time Display
11 Share mark
12 Play Option

Video Play mode : Shortcut menu (OK Guide)



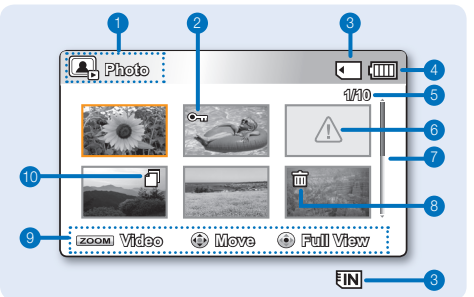
1 Move to next file / Forward playback (Next skip playback/Forward playback search/Forward slow playback/ Frame-by-frame playback) ➥page 27
2 Volume Down
3 Play (▶) / Pause (❚❚)
4 Move to previous file / Reverse playback (Previous Skip Playback/Reverse Playback Search/Reverse slow playback/ Frame-by-frame playback) ➥page 27
5 Volume Up

LCD SCREEN INDICATORS

Video Play mode : Single View (Volume)

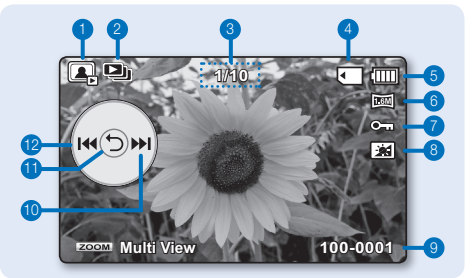
1 Date/Time
2 Volume Bar

Photo Play mode: Thumbnail View



1 Photo Play mode
2 Protection
3 Storage media (Memory card or built-in memory (SMX-C24 only))
4 Battery info (Remaining battery level)
5 Now/ Total file number
6 Error File
7 Scroll bar
8 Delete Selected
9 Button Guide
10 Copy Selected (SMX-C24 only)

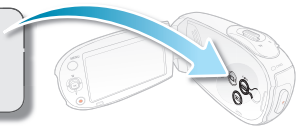
Photo Play mode : Single View



1 Photo Play mode
2 Slide Show
3 Image counter (current image / total number of recorded images)
4 Storage media (Memory card or built-in memory (SMX-C24 only))
5 Battery info (Remaining battery level)
6 Photo resolution
7 Protection
8 LCD Enhancer
9 File Name (file number)
10 OK Guide (Next image)
11 Shortcut menu (OK Guide) / Return
12 OK Guide (Previous image)

TURNING THE SCREEN INDICATORS ON/OFF

You can switch the on-screen information display mode.



Switching the information display mode :

- Press the **Display** button while the camcorder is on.
  The full and minimum display modes will alternate.

Full display mode: All relevant information will appear.
Minimum display mode: Only operating status indicators will appear.

<Full display mode>

<Minimum display mode>

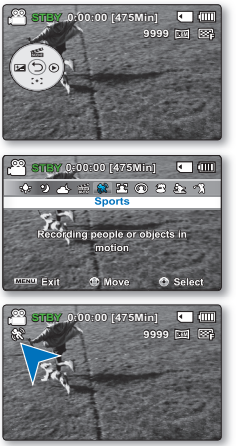
- If the camcorder has warning information, a warning message will appear.
- In the menu screen, the **Display** button will be deactivated.

SHORTCUT MENU (OK GUIDE)

The Shortcut menu (OK guide) represents the most frequently accessed functions according to the selected mode.

✪ **For example: Setting iSCENE in the Record mode using the Shortcut menu (OK guide).**

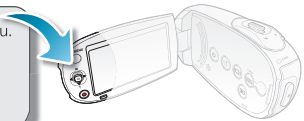
1. Press the **OK** button in STBY mode.
   - Shortcut menu (OK guide) is displayed.
2. Press the **Control** button (▲) to select **"iSCENE"** mode.
   - It displays the iSCENE mode menu, where you can press the **Control** button (◀ / ▶) to select the desired submenu item.
3. Press the **OK** button to confirm your selection.
   - Press the **OK** button to exit the shortcut menu.
   - The selected submenu item indicator ( ) will display on the screen.



- The shortcut menu (OK guide) cannot be used in the Smart Auto mode.
- Before selecting a menu item, please check out that you set the appropriate mode first.

Shortcut function using the Control buttons

1. Press the **Control** button (▲/▼/◀ / ▶) to select the desired menu. You can easily operate the menu by using the **Control** button.
2. The **Control** button operates various functions depending on the selected mode.
3. You can access the Shortcut menu directly using the **OK** button.



Button	Record (/) mode	Play mode		Menu selection
		Video Play ( ) mode	Photo Play ( ) mode	
OK	- Access the shortcut menu - Confirm selection - Exit the shortcut menu	- Shortcut menu (OK guide) is displayed - Playback / Pause	Single image playback	Confirms selection
UP	iSCENE Zoom (wide)	Increase the volume	Increase the volume (During the Music Slide Show)	Moves the cursor up
DOWN	Focus Zoom (tele)	Decrease the volume	Decrease the volume (During the Music Slide Show)	Moves the cursor down
LEFT	EV	- Search playback RPS (Reverse Playback Search) rate: x2→x4→x8→x16 - Previous Skip Playback - Frame-by-frame playback - Slow motion playback (Reverse slow playback) Rate: x1/2→x1/4→x1/8→x1/16	Previous image	Moves to the previous menu
RIGHT	Quick View	- Search playback FPS (Forward Playback Search) rate: x2→x4→x8→x16 - Next Skip Playback - Frame-by-frame playback - Slow motion playback (Forward slow playback) Rate: x1/2→x1/4→x1/8→x1/16	Next image	Moves to the next menu

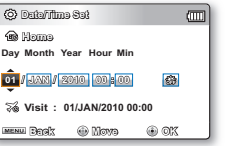
INITIAL SETTING : TIME ZONE, DATE AND TIME & OSD LANGUAGE

- Initial setting is available in all operating modes.
- To read the menus or messages in your desired language, set the OSD language.
- To store the date and time during recording, set the time zone and date/time.

Turning the power on and setting the date and time

Set the date and time when using the camcorder for the first time. If you do not set date and time, the date and time (time zone) screen appears every time you turn on your camcorder.

1. Open the LCD Screen and press the **Power** button to turn on the camcorder.
   - When you turn on your camcorder for the first time, the Time Zone screen appears based on London, Lisbon. (Greenwich Mean Time)
   - You can also set the **"Time Zone : Home"** in the **"Settings"** menu. ➥page 74
2. Select your geographical area with **Control** button (◀ / ▶), then press the **OK** button.
   - The **"Date/Time Set"** screen appears.
3. Select the date and time information, and change the setting values by using the **Control** button (▲/▼/◀ / ▶).
4. Make sure the clock is correctly set, and then press the **OK** button.



Tip

Turning the date and time display on/off
To switch the date and time display on or off, access the menu and change the Date/Time Display mode. ➥page 76

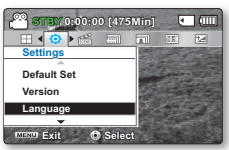
Simple setting of the clock by time difference
You can easily set the clock to the local time by setting a time difference when using your camcorder abroad. Select **"Time Zone"** on the menu, then set the time difference. ➥page 74

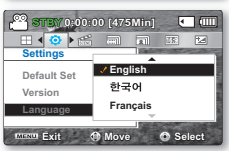
- The year can be set up to 2037, using the **"Home"** menu.
- According to the Daylight Savings time setting, the year may be displayed "2009" or "2038."
- Activating the icon ( ) forwards the time by 1 hour.
- **Rechargeable built-in battery**
  - The rechargeable battery is built in the camcorder to maintain the basic settings (date, time, etc.) even if the camcorder is turned off.
  - The settings are initialized if the battery is run out or discharged. In this case, set the date and time again after charging the battery pack.
  - Battery capacity decreases over time and through repeated use. If the battery is dead and not recharged, contact a SAMSUNG authorized service centre.

Selecting the OSD language

You can select the language to display the menu screen or messages. The language setting is retained when the camcorder is powered off.

1. Press the **MENU** button.
   - The menu screen appears.
2. Press the **Control** button (◀ / ▶) to select **"Settings."**
   - The menus in **"Settings"** mode will appear.
3. Press the **Control** button (▲ / ▼) to select **"Language"**, and then press the **OK** button.
4. Press the **Control** button (▲ / ▼) to select the desired OSD language, and then press the **OK** button.
5. Press the **MENU** button to exit the menu.
   - The OSD language is refreshed in the selected language.





Submenu items

English /한국어/ Français / Deutsch / Italiano / Español / Português / Nederlands / Svenska / Suomi / Norsk / Dansk / Polski / Čeština / Slovensky / Magyar / Română / Български / Ελληνικά / српски / Hrvatski / Українська / Русский / 中文 /日本語 / ไทย / Türkçe / ایرانی / العربية / עברית

- Even if battery pack or AC power are removed, the language setting will be preserved.
- The **"Language"** options may be changed without prior notice.
- The date and time format may change depending on the selected language.

SELECTING THE STORAGE MEDIA (SMX-C24 ONLY)

- You can record on the built-in memory or a memory card, so you should select the desired storage media before starting recording or playback.
- You can use SDHC and SD cards on your camcorder. (Some cards are not compatible depending on the memory card manufacturer and memory card type.)
- Before inserting or ejecting the memory card, turn the camcorder off.

Selecting the storage media

1. Press the **MENU** button.
   - The menu list will appear.
2. Press the **Control** button (◀ / ▶) to select **"Settings."**
3. Press the **Control** button (▲ / ▼) to select **"Storage Type"**, then press the **OK** button.
4. Press the **Control** button (▲ / ▼) to select **"Memory"** or **"Card"**, then press the **OK** button.
   - **"Memory"**: When using the built-in memory.
   - **"Card"**: When using a memory card.
5. Press the **MENU** button to exit.

Using the built-in memory (SMX-C24 only)

- Because this camcorder has an embedded 16GB (SMX-C24 only) memory, it is not necessary to buy extra storage media. This makes recording/playback more convenient.

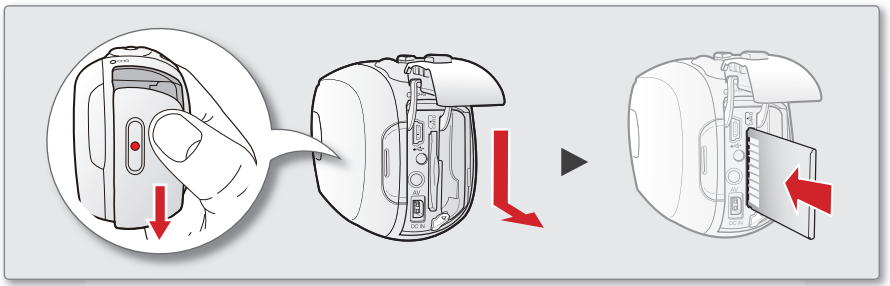
Using a memory card (not supplied)

- This camcorder has a card slot for access to SD and SDHC (Secure Digital High Capacity).
- You can use SDHC and SD cards on your camcorder.
  - Some cards are not compatible depending on a memory card manufacturer and memory card type.

Never format the built-in memory or memory card using a PC.

- If you insert a memory card when the camcorder is on, the pop-up message will prompt you automatically to select the storage type. (SMX-C24 only)
- If there is no memory card inserted, only the built-in memory will be available. (SMX-C24 only)

INSERTING / EJECTING THE MEMORY CARD



Inserting a memory card

1. Turn the camcorder off.
2. Slide and open the battery/memory card cover as shown in the diagram.
3. Insert the memory card into the memory card slot until it softly clicks in the direction of the arrow shown in the diagram.
4. Close the cover.

Ejecting a memory card

1. Turn the camcorder off.
2. Slide and open the battery/memory card cover as shown in the diagram.
3. Slightly push the memory card inwards to pop it out.
4. Pull the memory card out of the memory card slot and close the cover.

- As shown in the diagram, be sure to insert the memory card with the label facing right.
- Do not format the memory card on a PC.
- Do not eject a memory card during operations such as recording, playback, formatting, deleting, and editing. Doing so may damage the storage media or data.
- Be careful not to push the memory card too hard. The memory card may suddenly pop out.
- If this is a new memory card, a card formatted by another device, or a card containing data stored by another device, format the card. ➥page 73
- Formatting erases all data on the memory card.

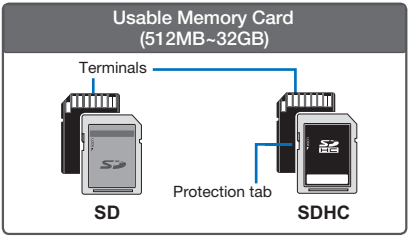
Your camcorder supports only SD (Secure Digital) and SDHC (Secure Digital High Capacity) cards. The compatibility with the camcorder may vary depending on manufacturers and types of the memory cards.

SELECTING A SUITABLE MEMORY CARD

A memory card is a compact portable storage media.

Compatible memory cards

- This camcorder can be used with SD (Secure Digital) and SDHC (Secure Digital High Capacity) cards. It is recommended to use an SDHC (Secure Digital High Capacity) card. SD cards up to 2GB are supported with this camcorder. Normal operation is not guaranteed with SD cards bigger than 2GB.
- Compatible memory card capacity:
  SD: 512MB~2GB, SDHC: 4~32GB
- Compatible recording media:
  The following recording media have been recommended for use with this camcorder. Others are not recommended, so buy such products with caution.
  SDHC/SD memory cards:
  By **Panasonic, SanDisk, and TOSHIBA**.
- If other media are used, they may fail to record data correctly, or they may lose data that has already been recorded. For video recording, use a memory card that supports faster write speed (at least 2MB/sec).
- SD/SDHC memory cards have a mechanical write-protection switch. Setting the switch prevents accidental erasure of files recorded on the card. To enable writing, move the switch up in the direction of the terminals. To set write protection, move the switch down.



SDHC (Secure Digital High Capacity) Memory Card

- The SDHC card is a higher version (Ver.2.00) of SD card and supports capacity above 2GB.
- Due to a change File Allocation System and physical specifications, the SDHC memory card cannot be used with current SD-enabled host devices. The SDHC memory card can be used with SDHC-enabled host devices which carry a SDHC logo on the device itself or on its operation manual.

Common cautions for memory card

- Damaged data may not be recovered. It is recommended you make a back-up of important data on the hard disk of your PC.
- Turning the power off or removing a memory card during operations such as formatting, deleting, recording, and playback may cause data loss.
- After you modify the name of a file or folder stored in the memory card using your PC, your camcorder may not recognise the modified file.

Handling a memory card

- It is recommended that you power off before inserting or removing the memory card to avoid data loss.
- It is not guaranteed that you can use a memory card formatted by other devices. Be sure to format your memory card using this camcorder.
- You have to format newly-purchased memory cards, memory cards with data that your camcorder cannot recognise or are saved by other devices. Note that formatting erases all data on the memory card.
- If you cannot use a memory card that has been used with another device, format it with your camcorder.
  Note that formatting erases all information on the memory card.
- A memory card has a certain life span. If you cannot record new data, you have to purchase a new memory card.
- A memory card is a precision electronic media. Do not bend, drop, or cause strong impact to the card.
- Do not use or store at high temperatures, in humidity or a dusty environment.
- Do not bring foreign substances on the memory card terminals. Use a soft dry cloth to clean the terminals if required.
- Do not paste anything other than exclusive label on the label pasting portion.
- Be careful to keep the memory card out of the reach of children, who might swallow it.

The camcorder supports SD/SDHC memory cards for data storage.

- The data storage speed may differ, depending on the manufacturer and production system.
- Users using a lower write speed memory card for recording a video may have difficulties storing the video on the memory card. You can even lose your video data during the recording.
- In an attempt to preserve every bit of the recorded video, the camcorder forcibly stores the video on the memory card and displays a warning: **"Low speed card. Please record at a lower resolution."**

To facilitate video recording, you are recommended to use a memory card that supports faster write speed.

- If you are forced to use a low speed memory card, resolution of the recording may be lower than the set value. However, the higher the resolution, the more memory will be used.
- For optimal performance of the camcorder, ensure that you purchase a fast speed memory card.

- MMC (Multi Media Card) and MMC Plus are not supported.
- Samsung is not responsible for data loss due to misuse.
- We recommend using a memory card case to avoid losing data from moving and static electricity.
- After a period of use, the memory card may get warm. This is normal and is not a malfunction.

RECORDABLE TIME AND CAPACITY

- The following shows the camcorder's maximum recording time and number of images according to the resolution/ memory capacity.
- For recording videos and photos, please note the approximate maximum limits.

Recordable time for videos

Media		Built-in memory*	Memory Card					
Capacity		16GB	1GB	2GB	4GB	8GB	16GB	32GB
TV Super Fine ( )	720x576 (50i)	380 min.	23 min.	47 min.	95 min.	190 min.	380 min.	760 min.
TV Fine ( )	720x576 (50i)	480 min.	30 min.	60 min.	120 min.	240 min.	480 min.	960 min.
TV Normal ( )	720x576 (50i)	620 min.	38 min.	77 min.	155 min.	310 min.	620 min.	1,240 min.
Web Fine ( )	640x480 (25p)	480 min.	30 min.	60 min.	120 min.	240 min.	480 min.	960 min.
Web Normal ( )	640x480 (25p)	620 min.	38 min.	77 min.	155 min.	310 min.	620 min.	1,240 min.

(Unit: Approximate minutes of recording)

Recordable number of photos

Media		Built-in memory*	Memory Card					
Capacity		16GB	1GB	2GB	4GB	8GB	16GB	32GB
Mode	Resolution							
4:3	800x600	9,999	1,920	3,840	7,680	9,999	9,999	9,999
	1600x1200	9,999	760	1,530	3,040	6,080	9,999	9,999
16:9	848x480	9,999	1,920	3,840	7,680	9,999	9,999	9,999
	1696x960	9,999	760	1,530	3,040	6,080	9,999	9,999

* Built-in memory for SMX-C24 only.

(Unit: Approximate number of images)

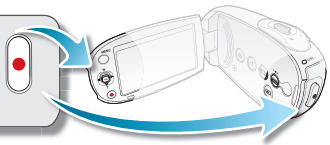
1GB= 1,000,000,000 bytes : actual formatted capacity may be less as the internal firmware uses a portion of the memory.

- The figures in the table may differ depending on the actual recording conditions and subject.
- The higher the Resolution, the more memory is used.
- High resolution images occupy more memory space than low resolution images. If the higher resolution is selected, there is less space to record videos in the memory.
- The bit rate automatically adjusts to the recording image. Accordingly, the recording time may vary.
- Memory cards of bigger than 32GB in capacity may not work properly.
- The maximum size of a video (H.264/AVC) file that can be recorded at one time is 1.8GB.
- You can store up to 9,999 videos or photos in one folder. A maximum of 999 folders can be used.
- The recording length of a Time Lapse REC may vary depending on settings.

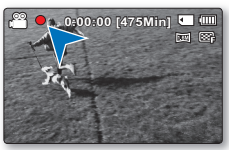
Basic procedures to record a videos or photos are described below and on the following pages.

RECORDING VIDEOS

The camcorder provides two **Recording start/stop** buttons. One is on the rear side of the camcorder and the other one is on the LCD panel. Select the one that works best for you.



1. Open the LCD screen and press the **Power** button to turn on the camcorder.
   - Connect a power source to the camcorder. ➥page 15
     (A battery pack or an AC power adaptor)
   - Set the appropriate storage media. ➥page 30 (SMX-C24 only)
     (If you want to record on a memory card, insert the memory card.)
2. Check the subject on the LCD screen.
3. Press the **Recording start/stop** button.
   - The recording indicator ( ) will display and recording will start.
   - To stop recording, press the **Recording start/stop** button again.
4. When recording is finished, turn the camcorder off.



- Samsung is not responsible for any loss or damages due to the memory card problem such as saving failures and abnormal playbacks.
- Beware that you can not recover a damaged recorded data.
- Do not disconnect the power source (battery pack, AC adaptor) during a recording. Otherwise, it may cause damage to the storage media or data corruption.

- For on-screen information display. ➥page 21
- Eject the battery pack when you have finished recording to prevent unnecessary battery power consumption.
- For various functions available when you record videos. ➥pages 45~58
- During recording, some button operations are unavailable. (**Mode** button, **MENU** button, etc.)
- Sound is recorded from the internal stereo microphone on the front of the camcorder. Take care that this microphone is not blocked.
- Before recording an important video, make sure to test the recording function to check if there is any problem with the audio and video recording.
- Do not operate the **Power** button or remove the memory card while accessing the storage media. Doing so may damage the storage media or the data on the storage media.
- LCD screen brightness and colour can be adjusted from the menu. Adjusting the brightness or colour of the LCD screen does not affect the image to be recorded. ➥page 77
- **This camcorder provides one combined video and photo record mode. You can easily record videos or photos in the same mode without having to change it.**
- You cannot use a locked memory card for recording. You will see a message saying recording is disabled due to the lock.
- You can switch the play mode to the record mode by pressing the **Recording start/stop** or **Mode** button.
- If the power cable/battery is disconnected or recording is disabled during recording, the system is switched to the data recovery mode. While data is being recovered, no other function is enabled. After data recovery, the system will be switched to the STBY mode. When the recording time is short, the data recovery might fail.

QUICK VIEW FUNCTION IN THE RECORD MODE

Using the Quick View function, you can view the most recently recorded video or photo image right after your recording.

1. Press the **OK** button in STBY mode right after your recording.
   - Shortcut menu (OK guide) is displayed on the LCD screen.
2. Press the **Control** button (▶) to view the most recent video (or photo) you have recorded.
   - After the Quick view is finished, your camcorder switches back to the STBY mode.
   - During a Quick view, use the **Control** buttons (▲/◀ /▶) and the **OK** button for playback search or deleting the current file.

The Quick View function is not available in the following conditions:
- If the mode has been changed after the recording or the camcorder is connected USB cable
- If the camcorder has been restarted after the recording
- After playing Quick View

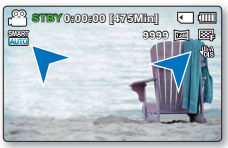
- Quick View is played at a normal speed, and FF/REW/F.ADV/Slow functions can be used as the same when playback the video. ➥page 42
- Volume control is not available while the playback of Quick View.
- You cannot select the Quick View while Smart Auto mode is in operation.
- If you press the **Recording start/stop** button or **Zoom** lever during the Quick View playback, the playback is stopped and switches to the STBY mode.

RECORDING WITH EASE FOR BEGINNERS : SMART AUTO MODE

User-friendly Smart Auto optimizes your camcorder to the recording conditions automatically, providing beginners with the best performance.

1. In STBY mode, press the **SMART AUTO** button.
   - The Smart Auto ( ) and Anti-Shake (HDIS) ( ) indicators appear on the LCD screen.
2. Align your subject in the frame.
   - The camcorder selects a scene automatically.
   - An appropriate mode icon will appear at the top left of the screen.

	Appears when recording objects in broad daylight.
	Appears when recording objects in landscapes.
	Appears when recording objects in bright backgrounds.
	Appears when recording objects in landscapes at night.
	Appears in recording portraits at night.
	Appears when recording objects indoors.
	Appears when recording portraits.
	Appears when recording close-up objects.



<Recording portrait>

3. Press the **Recording start/stop** button to record videos.
   - To record photos, press the **Photo** button.

- **Buttons not available in Smart Auto operation: MENU** button / **OK** button/ etc.
  When using buttons unavailable in Smart Auto mode, the message **"Release the Smart Auto"** appears on the screen. To use these functions, release the Smart Auto mode first.
- You cannot set or release the Smart Auto mode during recording.
- The camcorder may not detect the Portrait mode when recording a face, depending on a position of the face or brightness.
- According to light, distance between subjects and camcorder-shake, the camcorder can detect the same scene differently.
- When recording more than one scenes at the same time, Smart Auto prioritizes as below:
  Night Portrait > Portrait > Macro > White > Landscape > Night > Indoor For example,
  a) If portrait and Indoor can be applied at the same time, then portrait is selected and corresponding icon displays.
  b) If night portrait and night are applied at the same time, then night portrait is selected and corresponding icon displays.

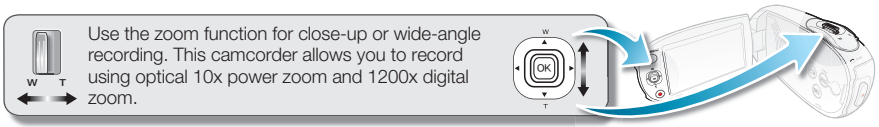
TAKING PHOTOS

This function Captures a moving subject instantly and saves the scene as a photo image. You can take photos with the **Photo** button.

1. Open the LCD Screen and press the **Power** button to turn on the camcorder.
   - Set the appropriate storage media. (SMX-C24 only) ➥page 30 (If you want to record on a memory card, insert the memory card.)
2. Check the subject on the LCD screen.
3. Press the **Photo** button.
   - Shutter sound is heard. Photo indicators ▶▶▶ appear on the screen, and the photo image is recorded.
   - While saving a photo image to the storage media, you cannot take the next photo.
4. When taking photos is finished, turn the camcorder off.

- Maximum number of recordable images may vary depending on the subject and resolution setup.
- Audio will not be recorded with the photo image on the storage media.
- If the focus is not clear enough, adjust it manually.
- LCD screen brightness and colour can be adjusted from the menu. Adjusting the brightness or colour of the LCD screen does not affect the image to be recorded. ➥page 77
- Do not turn off the camcorder or remove the memory card when taking photos as it may damage the storage media or data.
- Photo image files recorded by your camcorder conform to the “DCF (Design rule for Camera File system)” universal standard established by the JEITA (Japan Electronics and Information Technology Industries Association).
- DCF is an integrated image-file format for digital cameras: Image files can be used on all digital devices conforming to DCF.
- Available photo image resolutions are 1696X960 and 848X480 in 16:9 aspect ratio, while 1600X1200 and 800X600 are available in 4:3 aspect ratio. (To switch to 4:3, release 16:9 mode.) ➥page 47
- **This camcorder provides one combined video and photo record mode. You can easily record videos or photos in the same mode without having to change it.**

ZOOMING IN AND OUT


W
T
Use the zoom function for close-up or wide-angle recording. This camcorder allows you to record using optical 10x power zoom and 1200x digital zoom.
W
OK
T

- You can zoom with the zoom lever or the **Control** (W/T) button on the LCD panel.
- Zoom magnification over 10x is done through digital image processing, and is therefore called digital zoom. Digital zooming is possible up to 1200x.
  Set **"Digital Zoom"** to **"On."** ➥page 55

To zoom out

Slide the Zoom lever towards **W** (wide-angle). (Or press the **Control** button (▲) on the LCD panel.)

To zoom in

Slide the Zoom lever towards **T** (telephoto). (Or press the **Control** button (▼) on the LCD panel.)

Tip When using the zoom function, its speed can be decreased by slowly moving the Zoom (W/T) lever. A fast moving increases the zoom speed. However, the Zoom (W/T) button on the display cannot adjust the zoom speed.

- The minimum possible distance between camcorder and subject while maintaining sharp focus is about 5cm (about 1.96 inch) for wide-angle and 1m (about 39.4 inch) for telephoto.
- Zooming during a recording may record operation sound of the zoom lever or zoom button.
- Optical zoom preserves image quality, but during digital zoom the image quality may suffer.
- Fast zooming or zooming in a far subject may cause slow focus. In this case, use **"Manual Focus."** ➥page 51
- It is recommended to use **"Anti-Shake (HDIS)"** with handheld recording if the subject is zoomed in and enlarged. ➥page 52
- Frequent use of the zoom function consumes more power.

playback

You can view recorded videos and photos in thumbnail index view and play them in various ways. In the thumbnail index view, you can directly select and display a desired image without using fast forwarding and rewinding.

CHANGING THE PLAYBACK MODE

- Pressing the **Mode** button changes the operation mode to Record (/) and Play (/) mode in turn.
- The recorded videos or photos are displayed in thumbnail index view. According to the previous record mode, recordings will be stored in videos or photos thumbnail index view, respectively. When switching to Play mode after recording a video, the videos thumbnail index view appears. When switching to Play mode after recording a photo, the photos thumbnail index view appears.

How to change between video and photo thumbnail view.

- You can simply switch between video and photo thumbnail view using the zoom lever.

PLAYING VIDEOS

This function works only in Video Play mode.
You can find a desired video clip quickly using the thumbnail index view.

PRECHECK!

Set the appropriate storage media. (SMX-C24 only) ➥page 30
(If you want to playback images on a memory card, insert a memory card.)

1. Press the **Mode** button to select the Play mode.
   - The thumbnail index view appears. The thumbnail highlight is on the latest created or played file.
   - Playing time of the selected file and moving thumbnail appear on the screen.
2. Select the Video thumbnail index view screen.
   - You can simply switch between video and photo thumbnail view using the zoom lever.
3. Use the **Control** button (▲ /▼ /◀ / ▶) to select the desired videos, and then press the **OK** button.
   - Shortcut menu for playback will be displayed for a while.
   - The selected videos are played according to the Play Option setting. ➥page 59
   - To stop playback and return to the thumbnail index view, move the zoom lever.

- If there is no file stored to view, the message **"Empty"** appears.
- Video files may not playback on the camcorder in the following cases:
  - Video files edited or renamed on a PC
  - Video files recorded by devices other than the camcorder
  - Video file formats that are not supported
- The built-in speaker automatically turns off when the Audio/Video cable is connected to the camcorder. (When connected to external devices, volume adjustment should be done on the connected external device.)
- You can playback recorded videos on a PC or a TV. ➥pages 88, 95
- You can upload recorded videos or photos to YouTube, Flickr or Facebook using Intelli-studio. ➥page 89
- For various functions available during playback, see "playback options." ➥pages 59~69
- Use the Quick View function if you want to preview the last recorded videos or photos. ➥page 36

Adjusting the volume

Press the **Control** button (▲ / ▼) to increase or decrease the volume.

- The volume bar disappears after approx. 3 seconds.
- You can hear the recorded sound from the built-in speaker.
- The level can be set to anywhere between 0 and 10.
  (If you close the LCD screen while playing, you will not hear the sound from the speaker.)
- The volume bar does not appear when Audio/Video cable jack is inserted.

Various Playback Operations

Still playback (pause) (▶/ II)

- Press the **OK** button during playback.
  - To resume normal playback, press the **OK** button again.

Search playback (◀x2I / Ix2▶)

- During playback, press and hold the **Control** button (▶) for forward search or the **Control** button (◀) for reverse search.
- Pressing the **Control** button (◀ /▶) to repeatedly increases the search speed for each direction.
  - RPS (Reverse Playback Search) rate: x2→x4→x8→x16
  - FPS (Forward Playback Search) rate: x2→x4→x8→x16
- To resume normal playback, press the **OK** button.

Skip playback (I◀◀/▶▶I)

- During playback, press the **Control** button (▶) to locate the start point of the next file. Pressing the **Control** button (▶) repeatedly skips files in forward direction.
- During playback, press the **Control** button (◀) to locate the start point of the current file. Pressing the **Control** button (◀) repeatedly skips files in reverse direction.
- Press the **Control** button (◀) within 3 seconds from the start point, and the first image of the previous file is skipped.

Frame-by-frame playback (◀II / II▶)

- In pause mode, use the **Control** button (◀ /▶) to play the video forward or backward one frame at a time.
  - To resume normal playback, press the **OK** button.

Slow motion playback (◀I / I▶)

- During pause, holding the **Control** button (◀ /▶) reduces the playback speed.
- During slow motion playback, pressing the **Control** button (◀ /▶) change the playback speed.
  - Forward slow playback rate: x1/2 → x1/4 → x1/8 → x1/16
  - Reverse slow playback rate: x1/2 → x1/4 → x1/8 → x1/16
  - To resume normal playback, press the **OK** button.
- Recorded sound is not heard in slow motion playback.

VIEWING PHOTOS

This function works only in Photo Play mode.
You can find and view desired photos quickly using the thumbnail index view.

PRECHECK!

Set the appropriate storage media. (SMX-C24 only) ➥page 30
(If you want to playback images on a memory card, insert a memory card.)

1. Press the **Mode** button to select the Play mode.
   - The thumbnail index view appears. The thumbnail highlight is on the latest created or played file.
2. Select the Photo thumbnail index view screen.
   - You can simply switch between video and photo thumbnail view using the zoom lever.
3. Use the **Control** button (▲/▼/◀ /▶) to select the desired photos, and then press the **OK** button.
   - Shortcut menu for playback will be displayed for a while.
   - To view the previous/next photo, press the **Control** button (◀ /▶).
   - To return to the thumbnail index view, move the zoom lever.

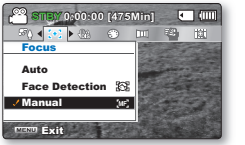
- Do not power off or eject the memory card during photo playback. Doing so may damage the recorded data.
- Your camcorder may not playback the following photo files normally:
  - A photo with its file name changed on a PC.
  - A photo recorded on other devices.
  - A photo with a file format not supported on this camcorder (does not conform to DCF standards).

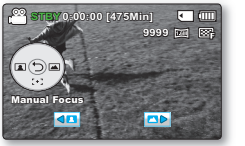
- Loading time may vary depending on the size and quality of the selected photo.
- The Quick View function is used if you want to preview the last recorded photos. ➥page 36

CHANGING THE MENU SETTINGS

You can change the menu settings to customise your camcorder. Access the desired menu screen by following the steps below and change the various settings.

1. Open the LCD Screen and press the **Power** button to turn on the camcorder.
2. Press the **Mode** button to select the play mode.
3. Press the **MENU** button.
   - The menu screen appears on the LCD screen.
4. Press the **Control** button (◀ / ▶) to select **"Focus."**
5. Select the desired item with the **Control** button (▲ / ▼, OK).
   - Adjust the set value according to the selected items.
   - Adjust the focus with the **Control** button (◀ / ▶) for **"Manual Focus."**
   - Press the **MENU** button to exit the menu.





- You cannot select the dimmed menu items during setting menus.
  For detailed information about the dimmed menu item, see 'Troubleshooting'. ➥page 108
- From the next page, the setting guide is presented under the basic state for your easy understanding. The setting steps varies depending on the setting status of your camcorder.

RECORDING MENU ITEMS

- Accessing items in the menu depends on the operation mode.
- For operation details, see the corresponding page. ➥pages 45~58

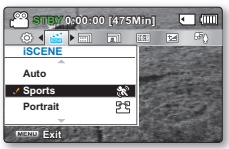
● : Possible

Items	Record mode	Default value	Page
iSCENE	●	Auto	45
Video Resolution	●	TV Fine	46
Photo Resolution	●	1696x960 (16:9)	47
16:9 Wide	●	On	47
EV	●	0	48
Back Light	●	Off	49
Focus	●	Auto	50
Anti-Shake (HDIS)	●	Off	52
Digital Effect	●	Off	53
Fader	●	Off	54
Wind Cut	●	Off	55
Digital Zoom	●	Off	55
Time Lapse REC	●	Off	56
Guideline	●	Off	58
Settings	●	-	71

iSCENE

This camcorder automatically sets the shutter speed and aperture according to the subject brightness for optimum recording: You can also specify one of various modes depending on subject conditions, recording environment or purpose of filming.

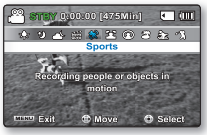
1. Press the **MENU** button → **Control** button (◀ / ▶) → **"iSCENE."**
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.



Submenu items

- **Auto:** You can shoot images in Auto adjustment mode.
- **Sports ( ):** Reduces blurring when recording rapidly moving subjects such as in golf or tennis. If the Sports mode is used under a fluorescent light, the image may flicker. In this case, use the Auto mode for recording.
- **Portrait ( ):** Creates a shallow depth of field so that the person or subject appears against a softened background. The portrait mode is most effective when used outdoors. EV value is automatically adjusted to the optimal.
- **Spotlight ( ):** Prevents overexposure of subject portrait face, etc. when strong light strikes the subject, as in a wedding or on stage.
- **Beach ( ):** Where sunlight is intense like a beach.
- **Snow ( ):** Where reflection of light is intense like a snowfield.
- **High Speed ( ):** Reduces blurring objects in rapid motion.
- **Food ( ):** Recording close-up objects in high saturation.
- **Waterfall ( ):** In condition as waterfall or fountain.
- **Daylight ( ):** Recording in broad daylight.
- **Cloudy ( ):** Recording under cloudy weather.
- **Fluorescent ( ):** Recording under white fluorescent lamp.
- **Tungsten ( ):** Recording under white tungsten lamp.
- **Night ( ):** Recording under low light.
- **Darkness ( ):** Recording under extremely low light.

Tip The iSCENE also can be set in the shortcut menu. ➥page 26

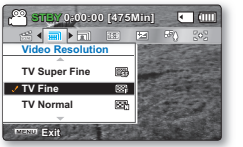


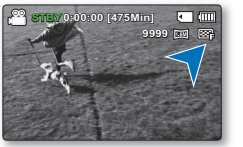
You can check the selected iSCENE on the on-screen information display. However, nothing will appear in **"Auto"** mode.

Video Resolution

You can select the resolution of a video to be recorded. This camcorder can record in **"TV Super Fine", "TV Fine", "TV Normal", "Web Fine"** and **"Web Normal"** modes. The **"TV Fine"** mode is set as the factory default.

1. Press the **MENU** button → **Control** button (◀ / ▶) → **"Video Resolution."**
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.





Submenu items

- **TV Super Fine ( ):** Videos recorded in 720x576 (50i) resolution at super-fine image quality.
- **TV Fine ( ):** Videos recorded in 720x576 (50i) resolution at fine image quality.
- **TV Normal ( ):** Videos recorded in 720x576 (50i) resolution at normal image quality.
- **Web Fine ( ):** Videos recorded in 640x480 (25p) resolution at fine image quality. Supports viewing with the optimal resolution on a PC.
- **Web Normal ( ):** Videos recorded in the 640x480 (25p) resolution at normal image quality. Supports viewing with the optimal resolution on a PC.

- You can record a scene at five resolution levels: **"TV Super Fine", "TV Fine", "TV Normal", "Web Fine"** or **"Web Normal."** However, the better the resolution is, the more memory is used.
- The recording times depend on the resolution of a video to be recorded. ➥page 34
- Video resolution settings of **"Web Fine"** and **"Web Normal"** record movie in 4:3 aspect ratio even when you set it to 16:9.

Photo Resolution

You can select the resolution of the photo image to be recorded. For detailed image capacity. ➥page 34

1. Press the **MENU** button → **Control** button (◀ / ▶) → **"Photo Resolution."**
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.

Submenu items

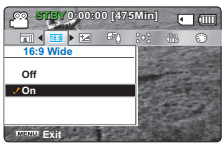
- **1696x960 (16:9) ( ):** Records in 1696x960 resolution.
- **848x480 (16:9) ( ):** Records in 848x480 resolution.
- **1600x1200 (4:3) ( ):** Records in 1600x1200 resolution.
- **800x600 (4:3) ( ):** Records in 800x600 resolution.

- Photos recorded by your camcorder may not be displayed in another device if it does not support the high resolution.
- For photo development, the higher the resolution, the finer the image quality.
- The number of recordable images varies depending on the recording environment. ➥page 34
- High resolution images occupy more memory space than low resolution images. If a higher resolution is selected, there is less space to store photos in the memory.
- The submenu items of Photo Resolution vary depending on the selection of the 16:9 Wide function.

16:9 Wide

You can select the desired LCD display aspect ratio for recording or playback (16:9 Wide/4:3 aspect ratio).

1. Press the **MENU** button → **Control** button (◀ / ▶) → **"16:9 Wide."**
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.



Submenu items

- **Off:** Disables the function. Displays the image in 4:3 aspect ratio. Select to use the standard display aspect ratio of 4:3 on the screen.
- **On:** Recording and viewing of 16:9 aspect ratio.

- In **"16:9 Wide"** mode, you cannot use the following functions : **"Mosaic", "Mirror", "Step printing"** (Digital Effect). If you want to use the following functions, set the **"16:9 Wide"** menu to **"Off"** first.
- Please set the aspect ratio before recording. The default setting is **"16:9 Wide : On."**
- Video resolution settings of **"Web Fine"** and **"Web Normal"** record video in 4:3 aspect ratio even when you set it to 16:9.

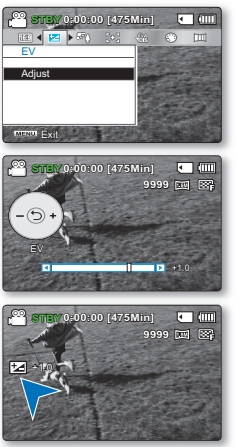
EV (Exposure Value)

The camcorder usually adjusts the exposure automatically.
You can also manually adjust the exposure depending on the recording conditions.

Setting the exposure manually:

When manually setting the exposure, the default setting appears as the value is automatically adjusted according to the environmental light conditions.

- Press the **Control** button (◀ / ▶) to adjust the exposure while viewing the image on the LCD screen.
  - Confirm your selection by pressing the **OK** button.
  - Exposure value can be set between **"-2.0"** and **"+2.0"**
  - If you set exposure to manual, the higher the exposure, the brighter the recorded photo will be.
  - Exposure value setting will be appeared and (⊠) indicator setting value are displayed.



Manual exposure is recommended in the following situations :

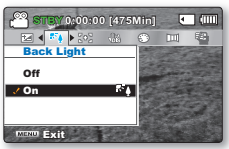
- When shooting using reverse lighting or when the background is too bright.
- When shooting against a reflective natural background such as at the beach or when skiing.
- When the background is overly dark or the subject is bright.

- The exposure also can be set in the shortcut menu. ➥page 27
- The shutter speed also varies automatically depending on the EV value.

Back Light

When the subject is lit from behind, this function will compensate for lighting so that the subject is not too dark.

1. Press the **MENU** button → **Control** button (◀ / ▶) → **"Back Light."**
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.



Submenu items

- **Off:** Disables the function.
- **On ( ):** Backlight compensation is executed. Backlight compensation brightens the subject quickly.

Back lighting influences recording when the subject is darker than the background:

- The subject is in front of a window.
- The subject is against a snowy background.
- The subject is outdoors and the background is overcast.
- The light sources are too bright.
- The person to be recorded is wearing white or shiny clothes and is placed against a bright background:
  The person's face is too dark to distinguish his/her features.

Focus

- The camcorder usually focuses on a subject automatically (auto-focus).
- You can also manually focus on a subject depending on the recording conditions.

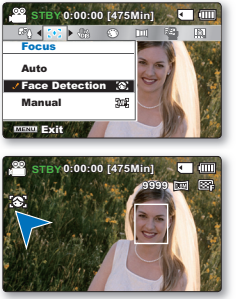
Submenu items

- **Auto**: In most situations, it is better to use the automatic focus feature, as it enables you to concentrate on the creative side of your recording.
- **Face Detection ( )**: Records under the optimal condition by detecting faces automatically.
- **Manual ( )**: Manual focusing may be necessary under certain conditions that make automatic focusing difficult or unreliable.

Face detection

It detects and recognises face-like shapes and adjusts focus, colour and exposure automatically. Also, it adjusts recording conditions optimised for the face detected.

- Press the **Control** button (▲ / ▼) → **"Face Detection"** → **OK** button.
  - Detects a face and shows a frame on it. The detected face image is optimised automatically.



- The Face Detection indicator ( ) and Face Detection frame ( ) are not recorded.
- Framing a person's face while Face Detection is set will adjust focus and exposure to optimal values automatically.
- Face Detection may not operate depending on the recording conditions. For example, the Face Detection Frame may appear when framing a "face-like" shape, even when the subject is not a person's face. If this occurs, turn off the Face Detection feature.
- The Face Detection feature will not work when framing the side of a person's face or operating while lack of illumination. You must be facing them "head-on" or occupying enough illumination.

Focusing manually during recording:

This camcorder automatically focuses a subject from close-up to infinity. However, the correct focus may not be obtained depending on the recording conditions. In this case, use the manual focus mode.

1. Press the **Control** button (▲ / ▼) to select **"Manual."**
   - The manual focus adjustment indicator appears.
2. Press the **Control** button (◀ / ▶) to select the desired indicator to adjust focus, then press the **OK** button.

Focusing on a nearer subject

To focus on a nearer subject, press the **Control** button (◀) to the indicator ( ).

Focusing on a farther subject

To focus on a farther subject, press the **Control** button (▶) to the indicator ( ).

- The nearer or farther icon (/) appears between the indicators when focus adjustment reaches the end.
- The adjusted value is applied right after pressing the **Control** button (◀ / ▶) to adjust the focus.
- The manual focus setting will be applied and the ( ) indicator is displayed.

<Nearer subject>

<Further subject>

Manual focus is recommended in the following situations :

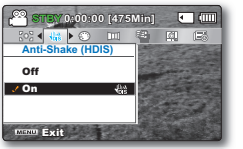
- A photo containing several objects, some close to the camcorder, others further away.
- A person enveloped in fog or surrounded by snow.
- Very shiny or glossy surfaces like a car.
- People or objects moving constantly or quickly like an athlete or a crowd.

- You can easily adjust the focus using Shortcut menu button. ➥page 27
- Manual focusing focuses on a point in the framed scene while auto focusing focuses on the centre area automatically.
- Use the zoom function to catch the desired target before manually adjusting the focus. If you use the zoom function after manual focusing, refocusing is required.
- Before focusing manually, check if the **"Digital Zoom"** is turned off. While **"Digital Zoom"** is turned on, manual focusing will not focus with accuracy. Turn the **"Digital Zoom"** off. ➥page 55

Anti-Shake (HDIS)

When you use zoom to record a magnified subject image, it will correct fuzziness in the recorded image.

1. Press the **MENU** button → **Control** button (◀ / ▶) → **"Anti-Shake (HDIS)."**
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.



Submenu items

- **Off:** Disables the function.
- **On ( ):** Compensates for unstable images caused by camcorder-shake, particularly at high magnification.

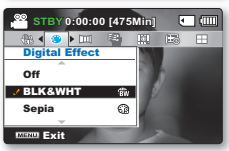
Anti-Shake (HDIS) provides a more stable image when:

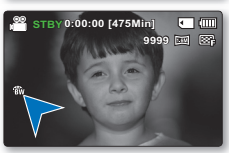
- Recording while zooming
- Recording small objects
- Recording while walking or moving
- Recording through the window of a moving vehicle

- Smart Auto mode automatically sets **"Anti-Shake(HDIS)"** to **"On."**
- When **"Anti-Shake (HDIS) : On"** is specified, there will be a slight difference between the actual movement and the movement on screen.
- Large camcorder shake may not be entirely corrected even if **"Anti-Shake (HDIS) : On"** is specified. Firmly hold the camcorder with both hands.
- It is recommended that you specify **"Anti-Shake (HDIS): Off "** when using the camcorder on a desk or tripod.
- When recording in dark lighting at high magnification while this function is set to **"On,"** after-images may stand out. In this case, we recommend using a tripod (not upplied) and turning the **"Anti-Shake (HDIS)"** to **"Off."**

Digital Effect

- The digital effect enables you to give a creative look to your recording.
- Select the appropriate digital effect for the type of photo that you wish to record and the effect you wish to create.
- There are 10 different digital effect options.





1. Press the **MENU** button → **Control** button (◀ / ▶) → **"Digital Effect."**
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.

In **"16:9 Wide"** or **"Anti-Shake (HDIS)"** mode, you can not use the following functions : **"Mosaic", "Mirror", "Stepprinting"** (Digital Effect). If you want to use the following functions, set the **"16:9 Wide"** and **"Anti-Shake (HDIS)"** menu to **"Off"** first.

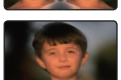
Examples of 10 digital effect options

BLK&WHT ( )
Changes the images into Black and White.

Negative ( )
Reverses the colours and the brightness, creating the look of a negative.

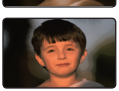
Emboss ( )
This mode creates a 3D effect (embossing).

Mirror ( )
This mode cuts the image in half and make mirrored image on the other half.

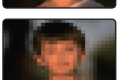


Cosmetic ( )
This mode helps correct facial imperfections.

Sepia ( )
This mode gives the images a reddish brown pigment.

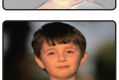


Art ( )
Adds artistic effects to an image.



Mosaic ( )
A mosaic overlay appears on an image.

Pastel ( )
This mode applies a pale pastel drawing effect to an image.

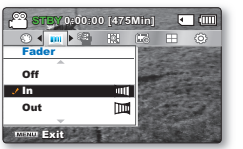


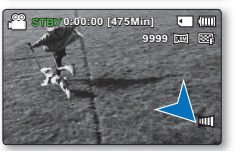
Step printing ( )
Technique of recording the image in segments.

Fader

You can give your recording a professional look by using special effects such as fade in at the beginning of a sequence or fade out at the end of a sequence.

1. Press the **MENU** button → **Control** button (◀ / ▶) → **"Fader."**
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.





Submenu items

- **Off:** Disables the function.
- **In ( ):** As soon as you start recording, the fader will be executed.
- **Out ( ):** When the recording is done, the fader will be executed.
- **In-Out ( ):** When you start or stop recording, the fader will be executed accordingly.

Fade in

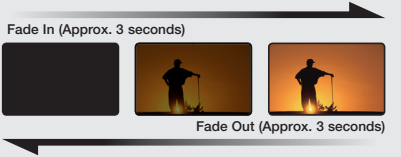
Press the **Recording start/stop** button when **"Fader"** is set to **"In."**
Recording starts with a dark screen and then the image and sound are faded in.

Fade out

Press the **Recording start/stop** button when **"Fader"** is set to **"Out."**
Recording stops as the image and sound are faded out.

Fade in-out

Press the **Recording start/stop** button when **"Fader"** is set to **"In-Out."** Recording starts with a dark screen and then the image and sound are faded in. And recording stops as the image and sound are faded out.

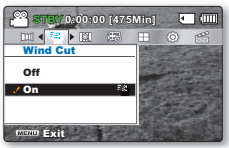


This function is disabled after being used one time. To use it again, you must reset it.

Wind Cut

You can reduce wind noise when recording sound from the built-in microphone. If **"Wind Cut : On"** is set, the low-frequency components in the sound picked up by the microphone will be cut off during recording: This makes it easier to hear voice and sound during playback. Use Wind Cut when recording in windy places such as a beach.

1. Press the **MENU** button → **Control** button (◀ / ▶) → **"Wind Cut."**
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.



Submenu items

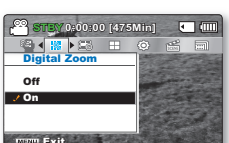
- **Off:** Disables the function.
- **On ( ):** Minimises wind noise or other noise while recording.

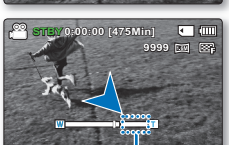
When **"Wind Cut"** is **"On"**, some low frequency sound is eliminated along with the sound of the wind.

Digital Zoom

You can select the maximum zoom level in case you want to zoom to a level greater than 10x (the default setting) during recording. Up to 10x zoom is performed optically, and after that, up to 1200X zoom is performed digitally. Note that the image quality decreases when you use the digital zoom.

1. Press the **MENU** button → **Control** button (◀ / ▶) → **"Digital Zoom."**
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.





Submenu items

- **Off:** Only optical zoom is available up to 10x.
- **On:** Digital zoom is available up to 1200x. Moving the zoom lever will display the digital zoom bar.

This right side of the bar shows the digital zooming zone.
The zooming zone appears when you move the zoom lever.

- The image quality may deteriorate depending on how much you zoom in on the subject.
- Maximum zooming may result in lower image quality.

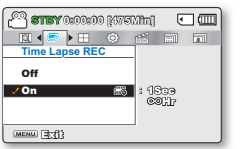
Time Lapse REC

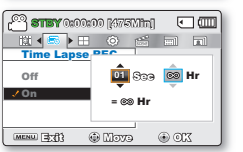
Time Lapse REC records still images at specific intervals you can set, and plays them as one video clip.
This function is useful for observing the movement of clouds, the changes in daylight or blooming flowers, etc.

Setting the Time Lapse REC mode:

To record in the Time Lapse REC mode, you need to set the recording interval and total recording time in the menu.

1. Press the **MENU** button → **Control** button (◀ / ▶) → **"Time Lapse REC."**
2. Press the **Control** button (▲ / ▼) → **"On"** → **OK** button.
   - The recording interval and total time for recording items are displayed.
3. Set a desired recording interval (**"Sec"**) with the **Control** button (▲ / ▼).
4. Move it next with the **Control** button (◀ / ▶) and set a desired total recording time (**"Hr"**) in the same way.
5. Press the **OK** button to finish the setting and press the **MENU** button to exit the menu.
6. After setting the Time Lapse REC mode, press the **Recording start/stop** button. The Time Lapse REC starts.
   - The still images are stored one by one according to the recording interval and total recording time.

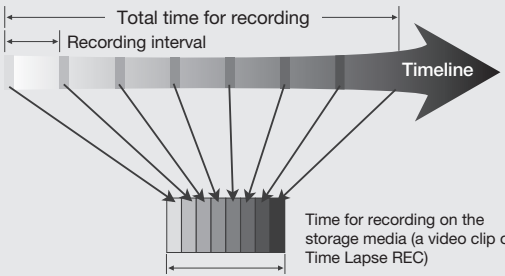




Submenu items

- **Off:** Disables the function.
- **On ( ):** Interval (**"Sec"**): Image of the subject is captured by set interval. Images are automatically shot a frame at a time at the specified interval and stored in the storage media. **01Sec → 03Sec → 05Sec → 10Sec → 15Sec → 30Sec** (Seconds)
  REC Limit (**"Hr"**): While you set the preparatory settings (recording interval and total recording time), the approximate time-lapse recording time will be displayed on the menu screen. **∞Hr → 24Hr → 48Hr → 72Hr** (Hours)

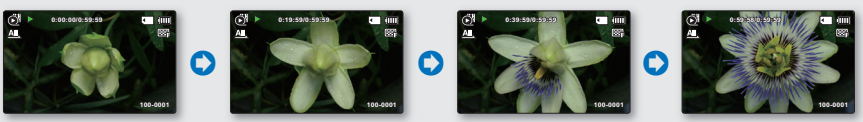
Example of Time Lapse REC


Total time for recording
Recording interval
Timeline
Time for recording on the storage media (a video clip of Time Lapse REC)

Time Lapse REC records image frames at the predefined interval over the total recording time to produce a time-lapse video.

Time Lapse REC is useful for filming in the following situations:

- Blooming flowers
- Insect's skin-casting
- Clouds rolling by in the sky



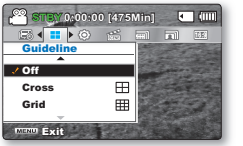
- This function is disabled after being used one time. To use it again, you must reset it.
- 25 captured images compose a video of 1 second length. Since the minimum length of a video to be saved by your camcorder is one second, the interval defines how long the Time Lapse Recording should be set for. For example, if you set the interval to **"30 Sec,"** Time Lapse Recording should be set for at least 15 minutes to record a minimum video length of 1 second (25 images).
- Once the Time Lapse REC finishes recording for its total recording time, it switches to standby mode.
- Press the **Recording start/stop** button if you want to stop the Time Lapse REC.
- Audio is not recorded during Time Lapse Recording.
- When a video recording fills up 1.8GB of storage media, a new recording file is automatically started at that point.
- When the battery is discharged exhausted during Time Lapse REC, it saves recording up to that point and switches to standby mode. After a while, it displays a warning message, then turns off automatically.
- When memory runs out while performing Time Lapse REC, the camcorder switches to standby mode after saving what was recorded so far.
- We recommend using the AC power adaptor when using the Time Lapse REC function.
- When a time lapse recording starts, a message of **"Time Lapse Recording"** blinks on the screen and it appeared to be as if the screen is stopped. This is a normal operation: do not remove the power source or memory card from the camcorder.

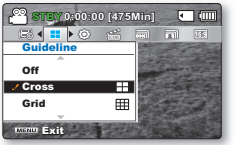
recording options

Guideline

- Guideline displays a certain pattern on the LCD screen so that you can easily set the image composition when recording images.
- The camcorder provides 3 types of guidelines.

1. Press the **MENU** button → **Control** button (◀ / ▶) → **"Guideline."**
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.





Submenu items

- **Off:** Disables the function.
- **Cross ( ):** Records the subject placed in the centre as the most general recording composition.
- **Grid ( ):** Records the subject on the horizontal or vertical composition or with close-up.
- **Safety Zone ( ):** Records the subject within safety zone which prevents from being cut when editing in 4:3 for left and right and 2.35:1 for top and bottom.
  Set **"Safety Zone"** when you want to have various subjects in one scene with the proper size.

- Positioning the subject at the cross point of the guideline provides a balanced composition.
- Guideline cannot be recorded on the images being recorded.

PLAYBACK MENU ITEMS

- Accessible items in the menu vary depending on the operation mode.
- See pages 40-43 for playback information and button operation.
- See pages 59-69 for details on menu items during playback.

● : Possible
× : Not possible

Items		Video Play ( )	Photo Play ( )	Default value	Page
Play Option		●	×	Play All	59
Delete		●	●	-	60
Protect		●	●	-	61
Story-Board Print		●	×	-	62
Copy (SMX-C24 only)		●	●	-	64
Edit	Divide	●	×	-	65
	Combine	●	×	-	66
Share Mark		●	×	-	67
Slide Show		×	●	-	68
Slide Show Option		×	●	-	69
File Info		●	●	-	69
Settings		●	●	-	71

In general, use of functions both in thumbnail display and full image display employs the same method, while their detailed options may be different.

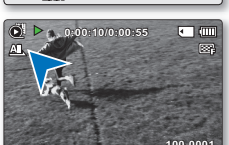
Play option

You can set a specific playback style according to your preference.

PRECHECK!

Press the **Mode** button to select the Play mode. ➥page 19

1. Select the Video or Photo thumbnail index view screen.
   - You can simply switch between video and photo thumbnail view using the zoom lever.
2. Press the **MENU** button → **Control** button (◀ / ▶) → **"Play Option."**
3. Select an option by pressing the **Control** button (▲ / ▼) and then press the **OK** button.
   - When you playback the video, a displayed indicator of the selected Play Option appears on the screen.



Submenu items

- **Play All ( ):** Plays back from the selected video to the last video.
- **Play One ( ):** The selected video will be played.
- **Repeat All ( ):** All videos will be played repeatedly.
- **Repeat One ( ):** The selected video will be played repeatedly.

playback options

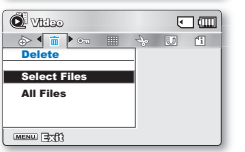
Delete

You can erase your recordings one by one, or at once.

PRECHECK!

Press the **Mode** button to select the Play mode. ➥page 19

1. Select the Video or Photo thumbnail index view screen.
   - You can simply switch between video and photo thumbnail view using the zoom lever.
2. Press the **MENU** button → **Control** button (◀ / ▶) → **"Delete."**
3. Select an option by pressing the **Control** button (▲ / ▼) and then press the **OK** button.
4. The pop-up selection menu will appear depending on the selected menu item. In this case, select the desired item with the **Control** buttons (◀ / ▶) and the **OK** button.
5. Repeat Step 4 for each item you want to delete.
6. Press the **MENU** button to delete the items you selected.



Submenu items

- **Select Files:** Deletes individual selected videos (or photos).
  To delete individual videos (or photos), select the desired videos (or photos) to be deleted by pressing the **OK** button. Then press the **MENU** button to delete. The indicator (🗑) is displayed on the selected videos (or photos).
  Pressing the **OK** button toggles the selection and release.
- **All Files:** Deletes all videos (or photos).

- Once the file is deleted, it cannot be restored again.
- Note that removing the battery pack or disconnecting the AC power adaptor while you delete files may damage the storage media.

- To protect important images from accidental deletion, activate the image protection. ➥page 61
- The protect ( ) indicator will blink if you try to delete an image that was previously protected. ➥page 61
- You must release the protect function to delete the image.
- If the write protection tab on the memory card is set to lock, you cannot delete. ➥page 32
- You can also format the storage media to delete all the images at once. Be aware that all files and data including protected files will be erased.
- Deleting may not operate if the battery charge is insufficient. If available, use the AC adaptor while deleting to prevent power disconnection.

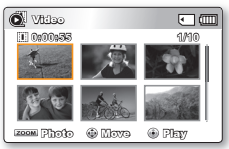
Protect

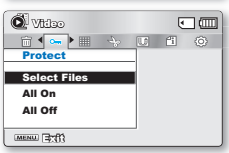
- You can protect saved important videos (or photos) from accidental deletion.
- Protected images will not be deleted unless you release the protection or format the memory.

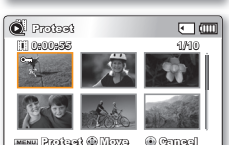
PRECHECK!

Press the **Mode** button to select the Play mode. ➥page 19

1. Select the Video or Photo thumbnail index view screen.
   - You can simply switch between video and photo thumbnail view using the zoom lever.
2. Press the **MENU** button → **Control** button (◀ / ▶) → **"Protect."**
3. Select an option by pressing the **Control** button (▲/▼) and then press the **OK** button.
4. The pop-up selection menu will appear depending on the selected menu item. In this case, select the desired item with the **Control** buttons (◀ / ▶) and the **OK** button.
5. Repeat Step 4 for each item you want to protect.
6. Press the **MENU** button to protect the items you selected.







Submenu items

- **Select Files:** Protects selected videos (or photos) from deletion.
  To protect individual videos (or photos), select the desired videos (or photos) by pressing the **OK** button.
  Then press the **MENU** button to confirm. The indicator ( ) is displayed on the selected videos (or photos).
  Pressing the **OK** button toggles the selection and release.
- **All On:** Protects all videos (or photos).
- **All Off:** Cancels the protection for all videos (or photos).

- Protected videos (or photos) will show the indicator ( ) when they are displayed.
- If the write protection tab on the memory card is set to lock, you cannot set image protection.

playback options

Story-Board Print

This function captures 16 still images arbitrarily from the selected video and saves them into the storage media. It presents a quick overview of your video, helping you to understand the overall topic.

PRECHECK!

Press the **Mode** button to select the Play mode. ➥page 19

1. Select the Video thumbnail index view screen.
   - You can simply switch between video and photo thumbnail view using the zoom lever.
2. Press the **MENU** button → **Control** button (◀ / ▶ /OK) → **"Story-Board Print"** → **"Select File."**
3. Use the **Control** button (▲ /▼ / ◀ / ▶) to select the desired videos, and then press the **OK** button.
   - A message appears asking for your confirmation.
4. Select **"Yes."**
   - The printed storyboard image files appear on the LCD screen for about 3 seconds.
   - A single 16 still image that consists of 16 images selected arbitrarily from the selected video will be saved in the storage media.

- Storyboard images are displayed in 4:3 aspect ratio. Hence, it may not display the entire image on the LCD screen. On a computer, it will display the entire image.
- **Using the iVIEW button, you can preview storyboard images to be printed.** **➥page 63**
- The storyboard printing may not show all 16 i-Frame thumbnails in following case:
  - Recorded video is too short (To extract 16 i-Frame thumbnails from a video, its recorded time should be longer than 8 seconds.)

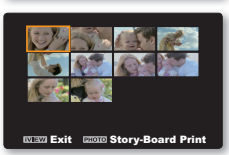
Using the iVIEW

This function provides the preview of storyboard to be printed, which gives you digest of the recorded video without viewing the whole sequence of it.

PRECHECK!

Press the **Mode** button to select the Play mode. ➥page 19

1. Select the Video thumbnail index view screen.
   - You can simply switch between video and photo thumbnail view using the zoom lever.
2. Use the **Control** button (▲ / ▼ / ◀ / ▶) to select the desired videos, press the **iVIEW** button.
   - 16 i-Frame images appears on the LCD screen.
   - The images from the selected video are selected arbitrarily, and compose the preview of storyboard to be printed.
   - If you want to save the storyboard image on the storage media, press the **Photo** button. Then you can find the saved storyboard image in the photo play mode. ➥page 43



In STBY mode, the button functions in the same manner as the Smart Auto button.

- STBY mode: Press the button. → Smart Auto function is operated. ➥page 37
- Play mode : Press the button. → iVIEW function is operated.

- **In the following case, it can not be extracted with all 16 i-Frame thumbnails:**
  - Recorded video is too short (To extract 16 i-Frame thumbnails from a video, its recorded time should be longer than 8 seconds.)
- This function is available only in the video thumbnail index view screen.

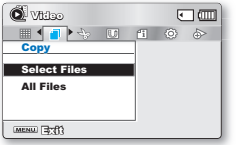
Copy (SMX-C24 only)

Movies and photos stored in the built-in memory can be copied to the external flash memory card.
Copying to the memory card does not delete originals in the built-in memory.

PRECHECK!

- Set the appropriate storage media. (Insert a memory card.) ➥page 30
- Press the **Mode** button to select the Play mode. ➥page 19

1. Select the Video or Photo thumbnail index view screen.
   - You can simply switch between video and photo thumbnail view using the zoom lever.
2. Press the **MENU** button → **Control** button (◀ / ▶) → **"Copy."**
3. Select an option by pressing the **Control** button (▲ / ▼) and then press the **OK** button.
4. The pop-up selection menu will appear depending on the selected menu item. In this case, select the desired item with the **Control** buttons (◀ / ▶) and the **OK** button.
5. Repeat Step 4 for each item you want to copy.
6. Press the **MENU** button to copy the items you selected. The items are copied to another storage medium.



Submenu items

- **Select Files:** Copies the individual videos (or photos). To copy individual videos (or photos), select the desired videos (or photos) by pressing the **OK** button. The indicator ( ) is displayed on the selected videos (or photos). Then press the **MENU** button to confirm. Pressing the **OK** button toggles selection and release.
- **All Files:** Copies all the videos (or photos).

Note that removing the battery pack or disconnecting the AC power adaptor while you copy files may damage the storage media.

- If a memory card is not inserted, you cannot perform the **"Copy"** function.
- You can not copy a file if the memory card has insufficient free space. Remove unnecessary files before proceeding. ➥page 60
- You can copy only as many files as the total size is less than the free space of the memory card. If the size of the files that you want to copy is larger than the free space, you will see an error message.
- Copied videos (or photos) have no protection even if the original is set to be protected.
- Copying may take a while depending on the number of files and file size.
- Copying may not operate if the battery charge is insufficient. If available, use the AC adaptor while copying to prevent power disconnection.

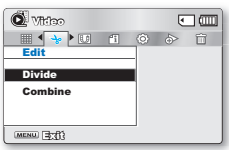
Divide

You can divide a video clip as many times as you want in order to delete a section you no longer need. The videos will be divided in groups of two.

PRECHECK!

Press the **Mode** button to select the Play mode. ➥page 19

1. Select the Video thumbnail index view screen.
   - You can simply switch between video and photo thumbnail view using the zoom lever.
2. Press the **MENU** button →**Control** button (▲ /▼ /◀ / ▶/OK) → **"Edit"** → **"Divide."**
3. Select a desired video clip using the **Control** button (▲ /▼ /◀ / ▶/OK).
   - The selected video clip will be paused.
4. Search the point of division by pressing the **Control** button (◀/ ▶/OK).
5. Press the **MENU** button to pause at the point of division.
   - A message appears asking for your confirmation.
6. Select **"Yes."**
   - If you want to delete an unwanted section of a video clip, divide the video first, and then delete the image (section) you no longer need. After dividing the video clip, you can also combine other desired videos. ➥page 66
   - The second image of the divided image will be displayed at the end of the thumbnail index.

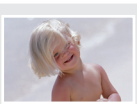


Example: You can divide a video clip into two in order to delete a section you no longer need.

1. Before dividing

0~60 seconds

2. After image is divided at 30 second point.



0~30 seconds

31~60 seconds

3. After deleting first image.

0~30 seconds

- The video clip is divided into two videos.

- **The Divide function is not available in the following conditions:**
  - If the total recorded time of the video is less than 6 seconds.
  - If you trying to divide sections without leaving 3 seconds at the beginning and the end.
  - If the video file is recorded in the Time Lapse REC mode.
  - If the remaining section of the storage media space is less than 40MB.
  - Videos recorded or edited by other devices.
- You cannot delete a protected image. You must first release the protect function to delete it. ➥page 61
- The division point may drift before or after the designated point by approximately 0.5 seconds.
- You can use the FF/REW/F.ADV/Slow functions with the **Control** button (◀/ ▶) while dividing files.

Combine

You can combine two different videos.

PRECHECK!

Press the **Mode** button to select the Play mode. ➥page 19

1. Select the Video thumbnail index view screen.
   - You can simply switch between video and photo thumbnail view using the zoom lever.
2. Press the **MENU** button → **Control** button (▲ /▼ /◀ / ▶/OK) → **"Edit"** → **"Combine."**
3. Move to the first video clip you want to combine using the **Control** button (▲ /▼ / ◀ / ▶/OK).
4. Press **OK** to select the clip. The (✓) indicator is displayed on the selected video clip.
   - Pressing the **OK** button toggles between selected and released.
5. Repeat Steps 3 and 4 for the second video you want to combine into this single clip.
6. Press the **MENU** button.
   - A message appears asking for your confirmation.
7. Select **"Yes."**
   - The two video clips you selected are combined in the order you selected them and restored as one video clip.
   - The thumbnail of the first video clip appears as the thumbnail for the combined video.

- **The combine function is not available in the following conditions:**
  - Videos in different resolution formats (TV super fine/TV fine/TV normal vs Web fine/Web normal) cannot be combined.
  - Videos in different aspect ratio cannot be combined. (4:3 vs 16:9 wide)
  - The video file recorded in the Time Lapse REC mode and normal record file cannot be combined.
  - If the total size of the two files to be combined exceeds 1.8GB
  - If the remaining section of the storage media space is less than 40MB.
  - A maximum of 2 videos can be combined at a time.
  - If you combine videos having the same resolution but different qualities, the combined video will have the lower image quality for playback. (For example, if you combine a video clip of **"TV Super Fine"** with another video clip of **"TV Fine"**, which has the same resolution, then the combined video will be in **"TV Fine"** resolution and quality.)
  - Videos recorded or edited by other devices.
- You cannot combine protected images. You must first release the protect function to paste it. ➥page 61
- The original videos will not be preserved.
- You can use the FF/REW/F.ADV/Slow functions with the **Control** button (◀/ ▶) while combining files.
- This function is available only in the thumbnail index view screen.

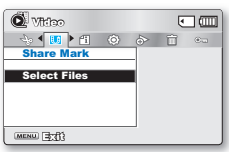
Share Mark

You can set the Share mark on the video image.
Then you can directly upload the marked file to the YouTube site.

PRECHECK!

Press the **Mode** button to select the Play mode. ➥page 19

1. Select the Video thumbnail index view screen.
   - You can simply switch between video and photo thumbnail view using the zoom lever.
2. Press the **MENU** button → **Control** button (◀ / ▶) → **"Share Mark"** → **"Select Files."**
3. Use the **Control** button (▲ /▼/◀ / ▶) to select the desired videos, and then press the **OK** button.
   - The Share mark indicator is displayed on the selected videos.
   - You can also check the Share mark on the video image by pressing **Share** button.
4. Repeat Step 3 for each video you want to mark.
5. Press the **MENU** button.
   - A message appears asking for your confirmation.
6. Select **"Yes."**



By using the software Intelli-studio embedded in the camcorder, you can easily upload videos marked with Share marks. ➥page 89

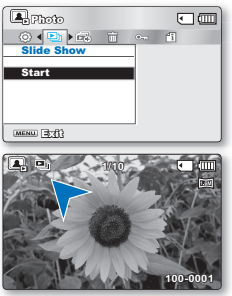
Slide Show

You can playback all the photos stored in the storage media automatically.

PRECHECK!

Press the **Mode** button to select the Play mode. ➥page 19

1. Select the Photo thumbnail index view screen.
   - You can simply switch between video and photo thumbnail view using the zoom lever.
2. Press the **MENU** button → **Control** button (◀ / ▶) → **"Slide Show"** → **"Start."**
3. Press the **OK** button.
   - The ( ) indicator is displayed. The Slide Show will start from the current image.
   - The Slide Show will start at an interval of 2~3 seconds.
   - To end the slide show, press the **OK** button again.



- 4 background music files are stored in the camcorder by default. When a slide show begins, it plays background music in arbitrary order.
- You can adjust the background music's volume level using the **Control** button (▲ / ▼) while in a slide show with music.
- Slide show starts even when there is only 1 photo image.

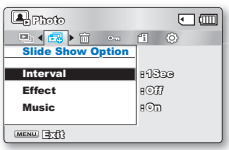
Slide Show Option

You can enjoy a slide show with various effects.

PRECHECK!

Press the **Mode** button to select the Play mode. ➥page 19

1. Select the Photo thumbnail index view screen.
   - You can simply switch between video and photo thumbnail view using the zoom lever.
2. Press the **MENU** button → **Control** button (◀ / ▶) → **"Slide Show Option."**
3. Select an option by pressing the **Control** button (▲ /▼ / ◀ / ▶) and then press the **OK** button.
4. The Slide Show will start with selected item.
   - To end the slide show, press the **OK** button again.



Submenu items

- **Interval:** Set the slideshow's image transition interval. (1 sec or 3 sec)
- **Effect:** If the **"Effect"** is set to **"On"**, the slideshow displays images consecutively.
- **Music:** If the **"Music"** is set to **"On"**, the slideshow will play back with background music. (The background music is selected randomly from 4 sample music files stored.)

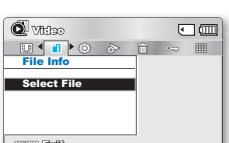
File Info

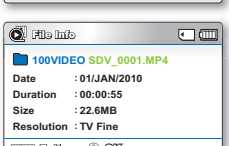
You can see the image information for all images.

PRECHECK!

Press the **Mode** button to select the Play mode. ➥page 19

1. Select the Video or Photo thumbnail index view screen.
   - You can simply switch between video and photo thumbnail view using the zoom lever.
2. Press the **MENU** button → **Control** button (◀ / ▶) → **"File Info" → "Select File."**
3. Use the **Control** button (▲ /▼/◀ / ▶) to select the desired videos (or photos), and then press the **OK** button.
   - The information of the selected file is displayed as shown below:
     - Date
     - Duration
     - Size
     - Resolution
   - Press the **MENU** button again after confirming.

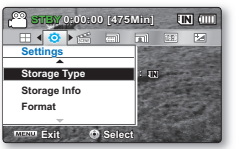


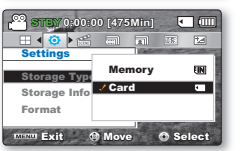


CHANGING THE MENU SETTINGS IN "SETTINGS"

You can setup the date/time, OSD language, and display settings of the camcorder.

1. Press **MENU** button.
   - The menu screen appears.
2. Press the **Control** button (◀ / ▶) to select **"Settings."**
   - The menus in **"Settings"** mode will appear.
3. Select the desired submenu and menu item with the **Control** buttons (▲ / ▼ / ◀ / ▶) and the **OK** button.
   - To return to the normal screen, press the **MENU** button.
   - Depending on the mode selected not all items will be selectable to be changed.
     (If there is no storage media inserted, it cannot be selected and will be dimmed on the menu: **"Storage Type (SMX-C24 only)", "Storage Info", "Format"**, etc.)





- The pop-up selection menu will appear depending on the selected menu item. In this case, select the desired item with the **Control** buttons (◀ / ▶) and the **OK** button.
- Before selecting a menu item, set the appropriate operation mode first. ➥page 19

SETTINGS MENU ITEMS ( )

● : Possible
× : Not possible

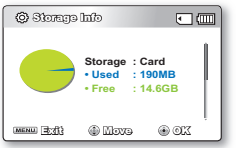
Items	Record (/) mode	Play mode (Thumbnail index screen)		Default values	Page
		Video ( )	Photo ( )		
Storage Type (SMX-C24 only)	●	●		Memory	30
Storage Info	●	●		-	72
Format	●	●		-	73
File No.	●	●		Series	73
Time Zone	●	●		Home	74
Date/Time Set	●	●		-	28
Date Type	●	●		01/JAN/2010	75
Time Type	●	●		24Hr	76
Date/Time Display	●	●		Off	76
LCD Brightness	●	×		0	77
LCD Colour	●	×		-	77
LCD Enhancer	●	●		Off	78
Auto LCD Off *	●	×		On	78
Menu Design	●	●		Misty White	79
Transparency	●	×		0%	79
Beep Sound	●	●		On	80
Shutter Sound	●	●		On	80
Auto Power Off *	●	●		5 Min	81
PC Software	●	●		On	81
TV Display	●	×		On	82
Default Set	●	●		-	82
Version	●	●		-	83
Language	●	●		English	29
Demo	●	×		On	83

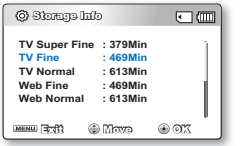
- These Items and default values may be changed without notice.
- There are some functions you cannot activate simultaneously in the menu. ➥page 108
  You cannot select the dimmed menu items.
- Items marked with * are available only when the camcorder is supplied the power using the battery pack.

Storage Info

It shows you the storage information. You can view the storage media, used memory space and available memory space.

1. Press the **Control** button (▲ / ▼) → **"Storage Info"** → **OK** button.
2. Used memory space, available memory space for use, and the recordable time depending on the selected video resolution appears.
3. Press the **MENU** button to exit the menu.





Submenu items

- **Memory:** It shows you the memory information of the built-in storage media. (SMX-C24 only)
- **Card:** It shows you the memory information of the inserted memory card.

- If there is no storage media inserted, it cannot be selected and will be dimmed on the menu.
- In the Storage Info display, you can check the used and available memory as well as the remaining recording time for each recording resolution. For the desired information, scroll the screen using the **Control** (▲ / ▼) button.
- Actual memory capacity may be less than that of displayed on the screen as its firmware uses a portion of the memory.

Format

Use this function if you want to delete all files completely or to correct problems on the storage media.

1. Press the **Control** button (▲ / ▼) → **"Format"** → **OK** button.
   - A message appears asking about formatting the memory card.
2. Select **"Yes."**
   - The format is executed with a message.
3. Press the **MENU** button to exit the menu.

Submenu items

- **Memory:** Formats the built-in storage media. (SMX-C24 only)
- **Card:** Formats the memory card.

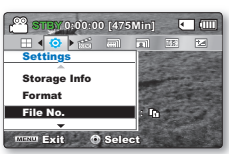
- Do not remove the recording medium or perform any other operation (such as turning off the power) during formatting. Also, be sure to use the provided AC adapter, as the recording medium may be corrupted if the battery becomes exhausted during formatting.
- If the recording medium becomes corrupted, format it again.

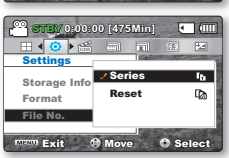
- **Do not format the storage media on a PC or other device.**
  Make sure to format the storage media on this camcorder.
- Format the memory card in the following cases:
  - before using a new memory card
  - a memory card formatted/recorded on other devices
  - when this camcorder cannot read the memory card
- A memory card with the protection tab set to lock will not be formatted.
- If there is no storage media inserted, it can not be selected. Then it will be dimmed on the menu.

File No.

File numbers are assigned to recorded files in the order they were recorded.

1. Press the **Control** button (▲ / ▼) → **"File No."** → **OK** button.
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.





Submenu items

- **Series:** Assigns file numbers in sequence even if the memory card is replaced with another one or after formatting, or after deleting all files. The file number is reset when a new folder is created.
- **Reset:** Resets the file number to 0001 even after formatting, deleting all files or inserting a new memory card.

- When you set **"File No."** to **"Series"**, each file is assigned with a different number so as to avoid duplicating file names. This is convenient when you want to manage your files on a PC.
- For the detailed information about the structure of folders and files, see page 93.

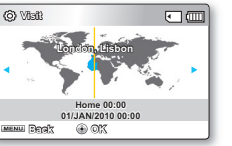
Time Zone

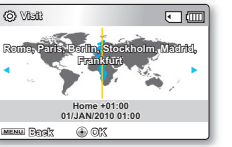
You can easily set the clock to the local time when using your camcorder while travelling.

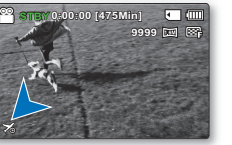
Submenu items

- **Home:** The clock will be used according to your setting on the **"Date/Time Set"** menu. Select it when using this camcorder for the first time or when returning the clock to your hometown date/time setting.
- **Visit ( ):** When you visit a different time zone, it allows you to use the local time without changing your hometown time setting. The clock will be adjusted in accordance with the time difference between the two locations.

Setting the clock to the local time ("Visit")







1. Press the **Control** button (▲ / ▼) → **"Time Zone"** → **OK** button.
   - The Time Zone screen will be displayed.
2. Select **"Visit"** with the **Control** button (▲/▼/OK) , and then select your local area using the **Control** button (◀ / ▶).
   - You can check the time difference between **"Home"** and **"Visit."**
3. Press the **OK** button to confirm.
   - The clock is set to the time zone of the place you are visiting.
4. Press the **MENU** button to exit the menu.
   - When **"Time Zone : Visit"** is set, the icon ( ) will be displayed next to the date and time display. ➥page 76

Cities used to set the time zone

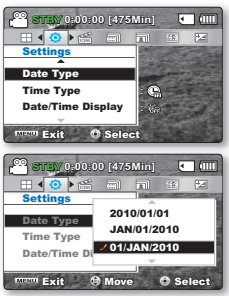
Cities	Time zone	Cities	Time zone
London, Lisbon	+00:00	Adelaide	+09:30
Rome, Paris, Berlin, Stockholm, Madrid, Frankfurt	+01:00	Guam, Sydney, Brisbane	+10:00
Athens, Helsinki, Cairo, Ankara	+02:00	Solomon Islands	+11:00
Moskva, Riyadh	+03:00	Wellington, Fiji	+12:00
Teheran	+03:30	Samoa, Midway	-11:00
Abu Dhabi, Muscat	+04:00	Honolulu, Hawaii, Tahiti	-10:00
Kabul	+04:30	Alaska	-09:00
Tashkent, Karachi	+05:00	LA, San Francisco, Vancouver, Seattle	-08:00
Calcutta, New Delhi	+05:30	Denver, Phoenix, Salt Lake City	-07:00
Kathmandu	+05:45	Chicago, Dallas, Houston, Mexico City	-06:00
Almaty, Dacca	+06:00	New York, Miami, Washington D.C., Montreal, Atlanta	-05:00
Yangon	+06:30	Caracas, Santiago	-04:00
Bangkok	+07:00	Buenos Aires, Brasilia, Sao Paulo	-03:00
Hong Kong, Beijing, Taipei, Singapore, Manila	+08:00	Fernando de Noronha	-02:00
Seoul, Tokyo, Pyongyang	+09:00	Azores, Cape Verde	-01:00

- You can set the date and time in **"Date/Time Set"** from the **"Settings"** menu. ➥page 28
- The times are based on Greenwich Mean Time (GMT).

Date Type

You can select the desired date type.

1. Press the **Control** button (▲ / ▼) → **"Date Type"** → **OK** button.
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.



Submenu items

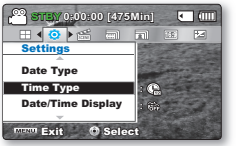
- **2010/01/01:** Displays the date in the order of year, month (two-digit) and day.
- **JAN/01/2010 :** Displays the date in the order of month, day and year.
- **01/JAN/2010 :** Displays the date in the order of day, month and year.
- **01/01/2010:** Displays the date in the order of day, month (two-digit) and year.

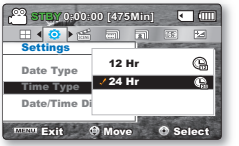
This function depends on the **"Date/Time Display"** setting.

Time Type

You can select the time format to display.

1. Press the **Control** button (▲ / ▼) → **"Time Type"** → **OK** button.
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.





Submenu items

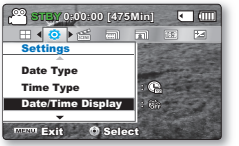
- **12 Hr:** The time is displayed in 12 hour units.
- **24 Hr:** The time is displayed in 24 hour units.

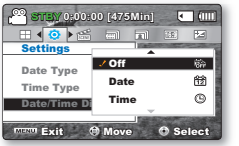
This function depends on the **"Date/Time Display"** setting.

Date/Time Display

You can set the date and time to display on the LCD screen. Before you use the **"Date/Time Display"** function, you must set the date and time. ➥page 28

1. Press the **Control** button (▲ / ▼) → **"Date/Time Display"** → **OK** button.
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.
   - The date/time is displayed on the LCD screen according to the selected option.





Submenu items

- **Off:** Current date and time information is not displayed.
- **Date:** Displays the current date.
- **Time:** Displays the current time.
- **Date & Time:** Displays the current date and time.

- The date/time will read **"01/JAN/2010 00:00 "** in the following conditions:
  - The built-in rechargeable battery becomes weak or dead.
- This function depends on the **"Date Type"** and **"Time Type"** setting.

LCD Brightness

You can adjust the brightness of the LCD screen to compensate for ambient lighting conditions.

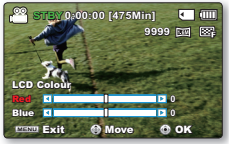
1. Press the **Control** button (▲ / ▼) → **"LCD Brightness" → OK** button.
2. Press the **Control** button (◀ / ▶) to adjust the value of a desired item.
   - Pressing the **Control** button (▶) will brighten the screen whereas pressing the **Control** button (◀) will darken the screen.
3. Press the **MENU** button to exit the menu.

- A brighter LCD screen setting consumes more battery power.
- If you adjust the LCD brightness when the ambient lighting is too bright, it is hard to see the monitor indoors.
- LCD Brightness does not affect the brightness of images to be stored.
- You can adjust the LCD Brightness from -15 to 15.

LCD Colour

- You can change the colour impression of the screen with a variety of colour options by adjusting the colour rate of red and blue.
- When you set red and blue colour range, the higher the figures the brighter the LCD screen.

1. Press the **Control** button (▲ / ▼) → **"LCD Colour" → OK** button.
2. Press the **Control** button (◀ / ▶) to adjust the value of a desired item.
   - You can adjust the LCD colour (red/blue) from -15 to 15, using the **Control** button (▲ / ▼ / ◀ / ▶ / OK).
3. Press the **MENU** button to exit the menu.

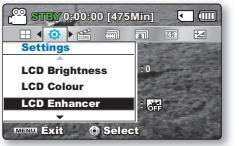


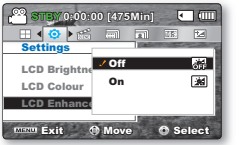
- You can manipulate the colour displayed on the LCD screen by adjusting the colour ratio of red and blue.
- Adjusting the colour display of LCD screen does not affect the image to be recorded.
- Higher blue or red values produce a brighter LCD screen.

LCD Enhancer

Contrast is enhanced for a clear and bright image. This effect is also implemented outdoors in bright daylight.

1. Press the **Control** button (▲ / ▼) → **"LCD Enhancer"** → **OK** button.
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.





Submenu items

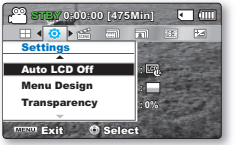
- **Off:** Disables the function
- **On ( ):** LCD Enhancer is executed.

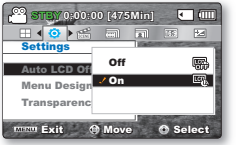
- LCD Enhancer function does not affect the quality of the image being recorded.
- When the LCD Enhancer works at low illumination, some stripes may occur on the LCD screen. This is not a malfunction.
- Using the LCD Enhancer function may cause colour look different on the display.

Auto LCD Off

To reduce power consumption, the brightness of the LCD screen is automatically dimmed if the camcorder is idle for more than 2 minutes.

1. Press the **Control** button (▲ / ▼) → **"Auto LCD Off"** → **OK** button.
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.





Submenu items

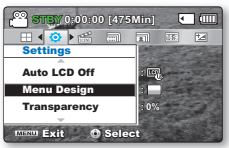
- **Off:** Disables the function
- **On:** When the camcorder is idle for more than 2 minutes in Video or Photo STBY mode, or for more than 5 minutes when recording a video, the power saving mode starts by dimming the LCD screen.

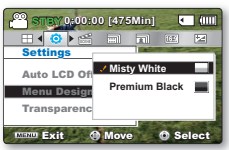
- When this **"Auto LCD Off"** function is enabled, you can press any button on the camcorder to return LCD brightness to normal.
- **Auto LCD Off will be disabled in the following cases:**
  - If the DC power cable (AC power adaptor, USB cable) is connected.

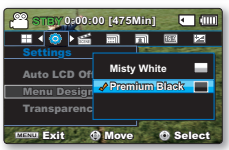
Menu Design

You can select the desired menu colour to display the menu.

1. Press the **Control** button (▲ / ▼) → **"Menu Design"** → **OK** button.
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
   - **"Misty White"** → **"Premium Black"**
3. Press the **MENU** button to exit the menu.



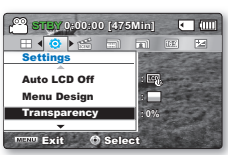




Transparency

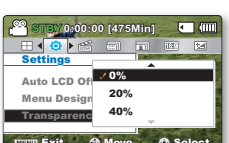
You can select the desired transparency to display the menu.

1. Press the **Control** button (▲ / ▼) → **"Transparency"** → **OK** button.
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
   - The transparency of the menu screen is changed to the selected value.
   - The bigger the value, the more transparent the screen is.
3. Press the **MENU** button to exit the menu.



Submenu items

"0%" → "20% " → "40%" → "60%"



<Transparency 0%>

<Transparency 60%>

The setting value is applied to the menu screen of Record mode only.

Beep Sound

You can set the beep sound to on/off. If there is a beep sound when operating the menu settings, the setting is turned on.

1. Press the **Control** button (▲ / ▼) → **"Beep Sound"** → **OK** button.
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.

Submenu items

- **Off:** Disables the function
- **On:** When on, a beep will sound every time a button is pressed.

The Beep sound function is cancelled in the following cases:
- During recording, playing
- When the camcorder has a cable connection. (AV cable)

Shutter Sound

You can turn the shutter sound on or off.

1. Press the **Control** button (▲ / ▼) → **"Shutter Sound"** → **OK** button.
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.

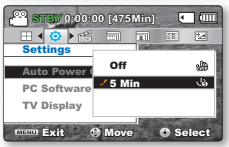
Submenu items

- **Off:** Disables the function
- **On:** When on, the shutter will sound with each press of the **Photo** button.

Auto Power Off

To save battery power, you can set the **"Auto Power Off"** function which turns off the camcorder if there is no operation for a certain period of time.

1. Press the **Control** button (▲ / ▼) → **"Auto Power Off"** → **OK** button.
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.



Submenu items

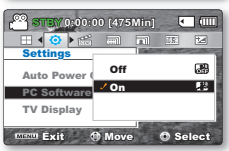
- **Off:** The camcorder does not turn off automatically.
- **5 Min:** For power saving purpose, the camcorder will automatically turn power off if there is no operation for 5 minutes only in STBY mode or in thumbnail index view.

- **Auto Power Off will be disabled in the following cases:**
  - If the DC power cable (AC power adaptor, USB cable) is connected
  - While the **"Demo"** menu is running
  - During recording, playing (Pause excluded), or a slideshow
- Press the **Power** button to restart the camcorder.

PC Software

If you set PC Software to on, you can simply use the PC software by connecting the USB cable between the camcorder and your PC. You can download the stored videos and photos stored on the camcorder to your PC's hard disk. Editing video/photo files is also available using the PC software.

1. Press the **Control** button (▲ / ▼) → **"PC Software"** → **OK** button.
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.



Submenu items

- **Off:** Disables the function
- **On:** You can simply use the PC software by connecting the USB cable between the camcorder and your PC.

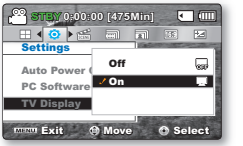
The PC Software is compatible with the Windows OS only.

settings options

TV Display

You can select the output path of the OSD (On Screen Display).

1. Press the **Control** button (▲ / ▼) → **"TV Display"** → **OK** button.
2. Select the desired submenu item with the **Control** button (▲ / ▼) → **OK** button.
3. Press the **MENU** button to exit the menu.



Submenu items

- **Off:** The OSD appears in the LCD screen only.
- **On:** The OSD appears in the LCD screen and TV. (Connecting to a TV ➥page 94).

Default Set

You can initialise your camcorder settings to the factory defaults (initial settings at the factory). Initialising the camcorder settings to factory defaults does not affect recorded images.

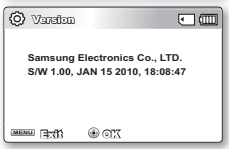
1. Press the **Control** button (▲ / ▼) → **"Default Set"** → **OK** button.
2. Press the **"Yes"**, if you want all the settings return to the default.
   - The Time Zone screen appears after all settings return to the default.
3. Set the **"Date/Time Set"** again. ➥page 28

- Do not turn off the power while using this function.
- Initializing the camcorder settings to factory defaults does not affect recorded images.

Version

The version information could be changed without the prior notice.

1. Press the **Control** button (▲ / ▼) → **"Version"** → **OK** button.
   - The version information displayed on the LCD screen.
2. Press the **MENU** button to exit the menu.



For enhanced performance, the version information can be changed without prior notice.

Demo

Demonstration automatically shows you the major features that are included with your camcorder so that you may use them more easily.

1. Press the **Control** button (▲ / ▼/OK) → **"Demo"** → **"On."**
   - If you don't want this function, select the **"Off."**
2. Press the **MENU** button to exit the menu.
   - The Demo function starts on the LCD screen.

Submenu items

- **Off:** Disables the function.
- **On:** Activates demonstration mode and shows various features on the LCD screen.

The Demo mode is cancelled in the following cases:

- If any button is operated (**Recording start/stop, Photo, SMART AUTO**, etc.) However, the camcorder will enter the Demo mode automatically after 5 minutes in STBY mode if it is idle for 5 minutes without operation. If you don't want the Demo function to start, set **"Demo"** to **"Off"**.

Using the Shop Mode

- In STBY mode, hold the **MENU** button for 5 seconds to start demo function immediately without accessing the menu for setting **"Demo: on."**

The Demo function does not operate in the following cases:

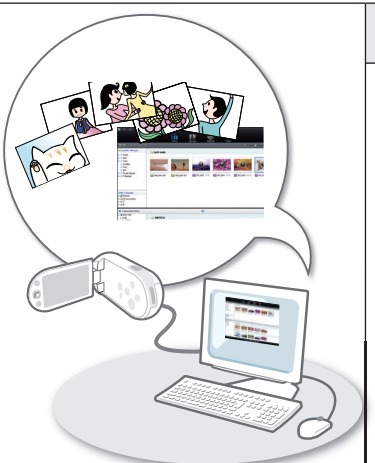
- If **"Auto Power Off"** is set to **"5 Min"** (uses the battery as main power), the Auto Power Off function will turn the camcorder off before Demo can run.

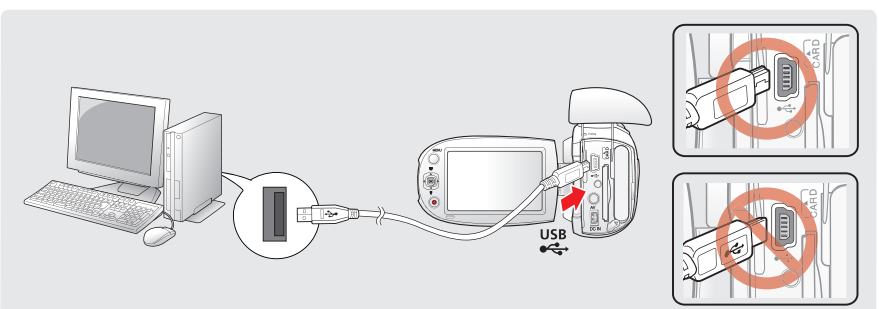
CHECKING YOUR COMPUTER TYPE

This chapter explains how to connect the camcorder to a computer using the USB cable.

Check your computer type before using!!!

To view your recordings on a computer, you need to check your computer type first. Then, take the steps below according to your computer type.

Using with Windows		Using with Macintosh
Connect your camcorder to the computer using the USB cable. • The built-in editing software Intelli-studio runs on the PC automatically once the camcorder is connected to a Windows computer. (When you specify **"PC Software: On"**). ➥page 81		The built-in software on your camcorder, 'Intelli-studio', is not Macintosh compliant.
Play back or edit your recordings on the computer using the built-in, Intelli-studio application. ➥page 88		
You can also upload your recordings to YouTube or other web sites with the aid of the Intelli-studio. ➥page 89		



WHAT YOU CAN DO WITH A WINDOWS COMPUTER

You can enjoy the following operations by connecting your camcorder to your Windows computer by using a USB cable.

Main Functions

- By using the built-in editing software, 'Intelli-studio' on your camcorder, you can enjoy the following operations.
  - Playing back recorded videos or photos. ➥page 88
  - Editing recorded videos or photos. ➥page 88
  - Uploading the recorded videos and photos to YouTube, Flickr or Facebook, etc. ➥page 89
- You can transfer or copy the files (videos and photos) saved on the storage media to your computer. (Mass storage function) ➥page 92

System Requirements

The following requirements must be met for using the built-in editing software (Intelli-studio):

Items	System Requirements
OS (Operating System)	Windows XP/Vista/Windows 7
CPU	Intel® Pentium®4 3.0 GHz or higher AMD Athlon™ FX 2.2 GHz or higher (Notebook: Intel Core2 Duo 2.2GHz or AMD Athlon X2 Dual-Core 2.6GHz or higher recommended)
RAM	1GB or higher recommended
Video Card	nVIDIA Geforce 7600GT or higher ATI X1600 series or higher
Display	1024 x 768, 16-bit colour or higher (1280 x 1024, 32-bit colour recommended)
USB	USB 2.0 support
Direct X	DirectX 9.0 or higher

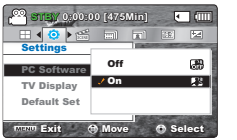
- System requirements mentioned above are recommendations. Even on a system that meets the requirements, operations may not be ensured depending on the system.
- On a slower computer than recommended, video playback may skip frames or operate unexpectedly.
- When the version of DirectX on your computer is lower than 9.0, install the programme in version 9.0 or higher.
- It is recommended to transfer the recorded video data to a PC before playing back or editing the video data.
- For doing this, a laptop computer requires higher system requirements than a desktop PC.

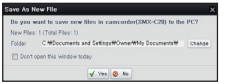
USING THE Intelli-studio Programme

Using the built-in Intelli-studio programme in your camcorder, you can transfer video/photo files onto your PC and edit them on your computer. The Intelli-studio offers the most convenient way for you to manage video/photo files by using the simple USB cable connection between the camcorder and your PC.

Step 1. Connecting the USB cable

1. Set the menu setting to **"PC Software: On."** ➥page 81
   - You will find the default menu settings are set as above.
2. Connect the camcorder and the PC with the USB cable.
   - A new file saving screen appears with the Intelli-studio main window.
   - According to your computer type, the corresponding removable disk window appears.
3. Click **"Yes",** the uploading procedure will start. Click **"Yes"** to confirm.
   - If you do not want to save a new file, select **"No."**





Disconnecting the USB cable:

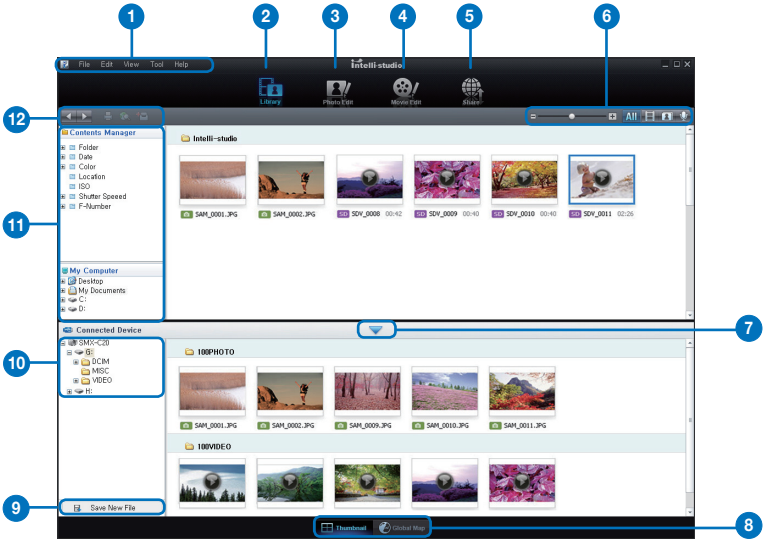
After completing the data transfer, make sure to disconnect the cable in the following way:

1. Click on the “Safely Remove Hardware icon” icon on the taskbar.
2. Select “USB Mass Storage Device”, and then click “Stop.”
3. If the “Stop a Hardware device” window appears, click “OK.”
4. Disconnect the USB cable from the camcorder and PC.

- Use the provided USB cable. (Supplied by Samsung)
- Don’t apply excessive force when inserting or extracting the USB cable into/from a USB jack.
- Insert the USB after checking the correct direction of its insertion.
- We recommend using the AC power adaptor as power supply instead of the battery pack.
- When the USB cable is connected, turning the camcorder on or off may cause the PC to malfunction.
- If you disconnect the USB cable from the PC or the camcorder while transferring data, the data transfer will stop and the data may be damaged.
- If you connect the USB cable to a PC via a USB HUB or simultaneously connect the USB cable along with other USB devices, the camcorder may not work properly. If this occurs, remove all USB devices from the PC and reconnect the camcorder.
- According to your computer type, the Intelli-studio programme may not run automatically. In this case, open the desired CD-ROM drive that has the Intelli-studio programme in My Computer and run iStudio.exe.

Step 2. About the Intelli-studio main window

When the Intelli-studio starts up, thumbnails of videos and photos are displayed in the main window.



1. Menu items
2. Switches to Library of the PC and connected camcorder.
3. Switches to Photo Edit mode.
4. Switches to Movie Edit mode.
5. Switches to Share mode.
6. Changes the size of thumbnails.
   All : Displays all files (videos and photos).
   : Displays video files only.
   : Displays photo files only.
   : Displays voice files only.
7. Minimizes the Connected Device screen.
8. Displays videos and photos in various ways.
   Thumbnail: Displays video and photo thumbnails.
   Global Map: Displays the location of shooting place with a map.
9. Saves new files to PC.
10. Selects the Connected Device.
11. Shows directories of Contents Manager and My Computer.
    Contents Manager:You can classify and manage videos and photos on your computer.
    My Computer:You can view videos and photos saved in the selected directory of your PC.
12. Shortcut icons
    : Navigates files (previous and next).
    : Prints selected photo(s).
    : Views location of selected photo(s) with GPS information.
    : Register folders to "Contents Manager".

Intelli-studio is the common use programme for SAMSUNG camcorder and digital camera models. Some functions may not operate properly depending on the product type.

Step 3. Playing back videos (or photos)

You can play back the recordings conveniently using the Intelli-studio application.

1. Run the Intelli-studio program. ➥page 86
2. Click the desired folder to display your recordings.
   - Video (or photo) thumbnails appear on the screen, according to the selected source.
3. Choose the video (or photo) that you want to play.
   - You can check the file information by moving the mouse on over the file.
   - Clicking on a video thumbnail once will show the video playback inside the thumbnail frame, allowing you to search for a desired video with ease.
4. Once you select the desired video (or photo), double-click to play back.

The following is the file format supportable in Intelli-studio:
- Video formats: MP4 (Video: H.264, Audio: AAC), WMV (WMV 7/8/9)
- Photo formats: JPG, GIF, BMP, PNG, TIFF

Step 4. Editing videos (or photos)

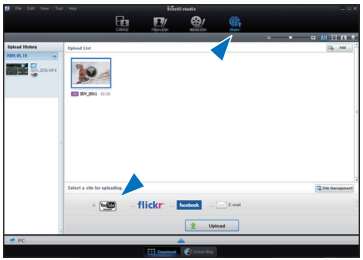
With Intelli-studio, you can edit videos or photos in various ways:
(Change Size, Fine-Tuning, Image Effect, Insert Frame, etc.)

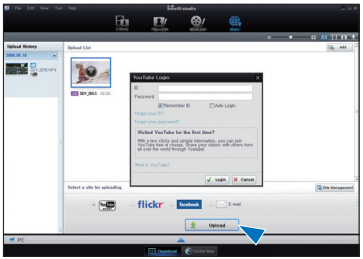
- To edit a file using the Intelli-studio, ensure to use a copy of the desired file saved in My Computer before clicking on the **"Movie Edit** **"** or **"Photo Edit** **"** icon.

Step 5. Sharing the videos/photos online

Share your contents with the world by uploading photos and videos directly to a web site with on click.

1. Select the desired videos or photos to **"Share** ".
2. Click the **"Add** " and move the video or photo (drag and drop) to the sharing window for upload.
   - The selected file appears in the sharing window.
3. Click on the website you would like to upload files to.
   - You can choose **"YouTube** ", **"Flickr** " , **"Facebook** " or the specified website you want to set for your uploading management.
4. Click **"Upload"** to start uploading.
   - A pop-up window appears asking for your ID and the password.
5. Enter your ID and password to access.
   - Access to the web site contents can be limited depending on your web access environment.





- For more information about Intelli-studio use, see the Help Guide by clicking the **"Help" → "Help."**
- You can simply upload Share marked videos onto YouTube by pressing the **Share** button.
➥page 67

Installing Intelli-studio application on a Windows computer

- When the Intelli-studio application is installed on a Windows computer, it will run faster after connecting the camcorder to your computer. Moreover, the application can be updated automatically and run directly on the Windows computer.
- The Intelli-studio application can be installed on a Windows computer as follows: Click on **"Tool" → "Install Intelli-studio on PC"** in the Intelli-studio screen.

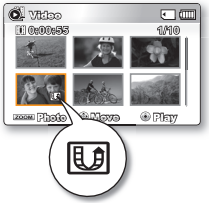
Direct uploading your videos onto YouTube

One-Touch **Share** button lets you directly upload and share your videos on the YouTube. Just press the **Share** button while your camcorder is connected to a Windows computer using the supplied USB cable. And then you can share them with your friends, family or the world.

STEP 1

You should previously set the Share mark on the desired videos which you want to upload directly onto the YouTube site. Press the Share button to select a desired video in the video thumbnail index screen.

- The Share mark is displayed on the selected videos.
- You can also set the Share mark on selected videos using the menu. ➥page 67



STEP 2

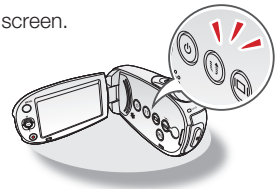
Connect the camcorder and a PC with the supplied USB cable. ➥page 86

- The Intelli-studio runs automatically once the camcorder is connected to a Windows computer (when you specify **"PC Software: On"**).

STEP 3

Press the Share button while your camcorder is connected to a computer using the supplied USB cable.

- Videos with the Share marks are displayed on the Sharing screen.
- Click "Yes" to start uploading.
- If you want to upload directly without showing a pop-up sharing window, check "Intelli-studio does not pop a list of share marked files in the connected device."



- Flickr is an image hosting website, web services suite, and online community platform. In addition to being a popular website for users to share personal photographs, the service is widely used by bloggers as a photo repository.
- **http://www.flickr.com/**

- Facebook is a global social networking website that is operated and privately owned by Facebook, Inc. Users can add friends and send messages, and update their personal profiles to notify friends about themselves. Additionally, users can join networks organized by city, workplace, school, and region.
- **http://www.facebook.com/**

- YouTube is a video sharing website. Users can upload, view, and share personalized video clips. The San Bruno-based service uses Adobe Flash technology to display a wide variety of users-generated contents including video clips, TV clips and music videos, as well as amateur contents such as video blogging and short orignal videos.
- **http://www.youtube.com/**

- When uploading to the YouTube, the selected video will be converted into a format playable by YouTube before uploading. Time spent for uploading may vary depending on the user's conditions including computer and network performances.
- There is no guarantee of uploading operation in all environments, and server-side changes of YouTube in the future may disable this function.
- This product's YouTube uploading functionality is provided under the licence from YouTube LLC. The presence of YouTube uploading functionality of this product is not an endorsement or recommendation of the product by YouTube LLC.
- If you do not have an account of the specified website, you can register first before proceeding with the authorization.
- According to YouTube's policy, direct movie uploading may not be available in your nation / region.
- Video files can be uploaded onto the Youtube site only, and Flickr site only allows uploading photo files. Both video and photo files can be uploaded to the Facebook site.

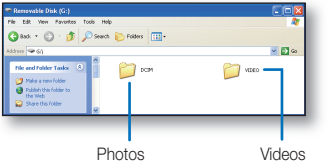
TRANSFERRING VIDEOS/PHOTOS FROM THE CAMCORDER TO YOUR COMPUTER

You can transfer recorded data (video or photo) to a Windows computer by connecting the USB cable to the camcorder.

Viewing the contents of storage media (built-in memory or memory card)

1. Check the **"PC Software: Off"** setting. ➥page 81
2. Check the storage media.
   (If you want to record on a memory card, insert the memory card.) (SMX-C24 only)
3. Connect the camcorder to the PC with the USB cable. ➥page 86
   - The "Removable Disk" or "Samsung" window appears on the PC's screen after a moment.
   - The removable disk appears when connecting a USB.
   - Select "Open folders to view files using Windows Explorer" and click "OK."
4. The folders in the storage media appear.
   - Different file types are stored in different folders.
5. Save the desired files on the storage media to your PC.

Removable Disk (G:)
Windows can perform the same action each time you insert a disk or connect a device with this kind of file:
Pictures
What do you want Windows to do?
using Photo Printing Wizard
View a slideshow of the images
using Windows Picture and Fax Viewer
Copy pictures to a folder on my computer
using Microsoft Scanner and Camera Wizard
Browse picture files
using MediaShow
Open folder to view files
using Windows Explorer
Always do the selected action.
OK
Cancel



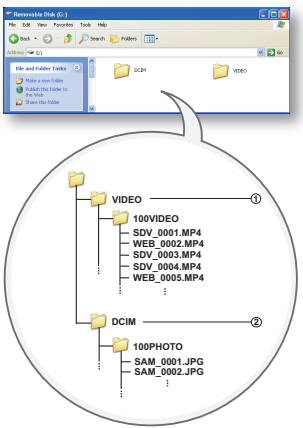
- If the "Removable Disk" window does not appear, confirm the connection (➥page 86) or repeat steps 1 and 3 again.
- When the removable disk does not appear automatically, open the removable disk folder of My Computer.
- If the connected camcorder's disk drive does not open or the context menu that appears when right-clicking your mouse (open or browse) appears broken, your computer is likely to be infected by an Autorun virus. It is recommended to update the anti-virus software to its latest version.

Structure of folders and files on the storage media

- The folder and file structure for storage media is as follows.
- Don't arbitrarily change or remove the folder or file name. It may not be playable.

Videos (H.264) ①

- The SD-quality videos (TV Super Fine, TV Fine, TV Normal) are named as "SDV_####.MP4".
- The Web videos (Web Fine, Web Normal) are named as "WEB_####.MP4".
- The file number automatically increases when a new video clip is created. Up to 9,999 files can be created in one folder.
- A new folder is created when files are created more than 9,999 files.



Photos ②

- As with videos, the file number automatically increases when a new image file is created.
- The maximum file number allowed is the same as for videos. A new folder stores files starting with SAM_0001.JPG.
- The folder name increases as follows: 100PHOTO → 101PHOTO etc.
- Up to 9,999 files can be created in one folder. A new folder is created when files are created more than 9,999 files.

Image format

Videos

- Videos are compressed in H.264 format. The file extension is ".MP4."
- Refer to page 46 for video resolution.

Photos

- Photos are compressed in JPEG (Joint Photographic Experts Group) format. The file extension is ".JPG."
- Refer to page 47 for photo resolution.

- When the 9,999th file is created in the 999th folder (i.e. SDV_9999.MP4 is created in the 999th VIDEO folder), no more folders can be created. Backup your files to a PC and format the storage media, and then reset file numbering from the menu.
- The name of a movie file recorded by the camcorder should not be modified, since proper playback by the camcorder requires original folder and file naming convention.

connecting to other devices

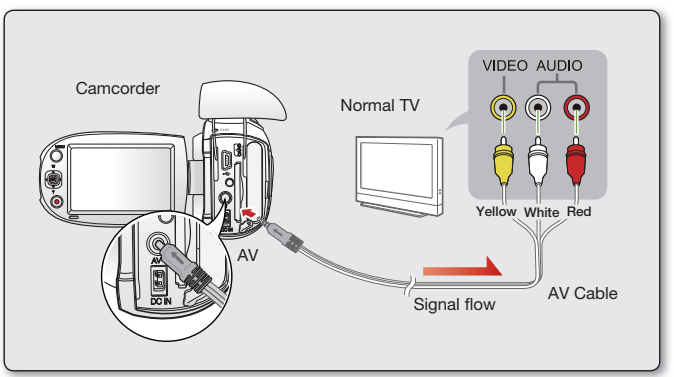
You can view the recorded videos and photos on a large screen by connecting the camcorder to a TV.

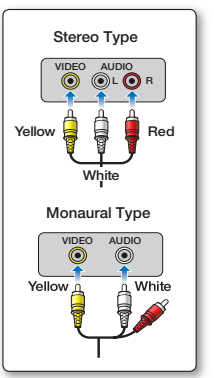
CONNECTING TO A TV

- To playback your recordings, the television must be PAL-compatible. ➥page 99
- We recommend that you use the AC power adaptor as power source for the camcorder.

Use the provided Audio/Video cable to connect the camcorder to a TV as follows:

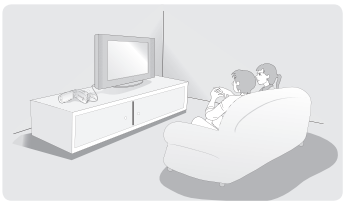
1. Connect the end of the Audio/Video cable with the single plug to the Audio/Video cable jack of the camcorder.
2. Connect the other end with video (yellow) and left (white)/ right (red) audio cables to the TV.





- Make sure that the Audio/Video cable is connected to the TV and the camcorder. You cannot view the image or hear the sound if the cable is not connected properly.
- When you connect the Audio/Video cable, match the colour of the Audio/Video cable jack and the TV terminals.
- Don't apply excessive force when inserting or extracting the cable into/from the Audio/Video cable.
- Use the AC power adaptor when connecting the cable to the TV.
- When the Audio/Video cable is connected to the camcorder, you should control the volume on the TV.
- The screen ratio of the TV and the camcorder may differ depending on the connected TV.

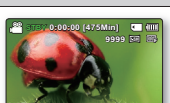
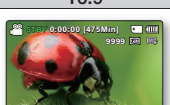
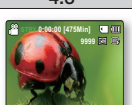
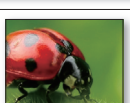
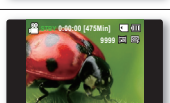
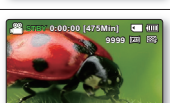
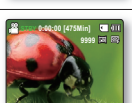
VIEWING ON A TV SCREEN



1. Turn on the TV and set the input selector to the Input connection the camcorder is connected to.
   - This is often referred to as "line." Refer to the TV instruction manual for how to switch the TV input.
2. Turn the camcorder on.
   - Press the **Mode** button to select the Play mode. ➥page 19
   - The image that the camcorder is displaying will appear on the TV screen.
   - You can also monitor the image on the LCD screen of the camcorder.
3. Perform playback.
   - You can perform playback, recording or setting the menu while viewing on TV screen.

- When **"TV Display"** is set to **"Off "**, OSD (On-Screen-Display) does not appear on the TV screen. ➥page 82
- When the Audio/Video cable is connected to the camcorder, the built-in speaker will automatically turn off and you cannot adjust the volume bar.

Image display depending on LCD and TV screen ratio

	Record (Video/Photo)	LCD	TV	
			16:9	4:3
16:9				
4:3				

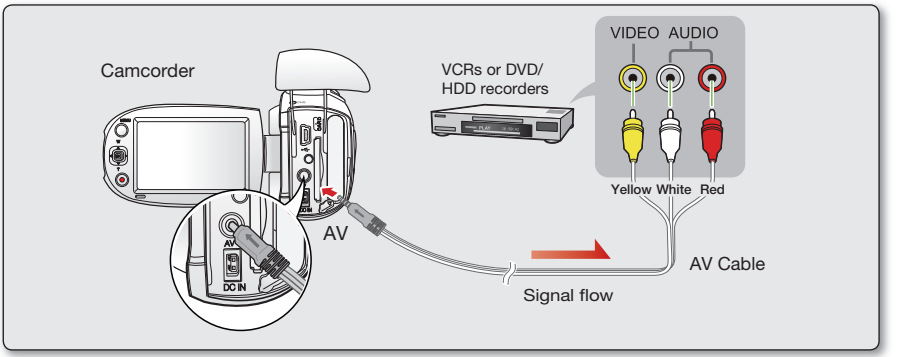
Refer to page 47 for the **"16:9 Wide"** setting.

RECORDING (DUBBING) IMAGES ON A VCR OR DVD/ HDD RECORDER

You can record (dub) images played back on this camcorder onto other video devices, such as VCRs or DVD/HDD recorders. Use the Audio/Video cable (provided) to connect the camcorder to another video device as shown in the following diagram:

To connect

1. Open the LCD screen and the jack cover.
2. Connect the camcorder to the recorder.
   - Connect the provided Audio/video cable to the terminals of the external device matched to each cable colour.



To copy

1. Choose the external input by pressing the input source button of the recording device.
   - Refer to the manual of the recording device.
2. Playback the selected video to be copied. ➥page 41
3. Start copying the video by pressing the record button of the recorder.
4. Press the stop recording button of the recorder to finish copying.

- Be sure to use the AC adaptor to power the camcorder from a household AC outlet to prevent battery power from shutting off during recording on another video device.
- Make sure to control the volume. Setting the volume too high may introduce noise to the recording video.
- When you connect the Audio/Video cable, match the colour of the Audio/Video cable and the TV terminals.
- You can copy videos by watching the images on the camcorder if the VCRs or DVD/HDD recorders is connected to the TV. (You can connect the external device as the same way of connecting a VCRs or DVD/HDD recorders to the TV in home.)
- To prevent recording OSD (information) to be displayed along with the AV signal, set the **"TV Display"** to **"Off"** in Menu Settings. ➥page 82

MAINTENANCE

Your camcorder is a product of superior design and craftsmanship and should be treated with care. The suggestions below will help you fulfil any warranty obligations and allow you to enjoy this product for many years.

✪ For safekeeping of the camcorder, turn off the camcorder.
- Remove the battery pack and AC power adaptor. ➥page 15
- Remove the memory card. ➥page 31

Cautions on Storing

- **Do not leave the camcorder in a place where the temperature is very high for a long period of time:**
  The temperature inside a closed vehicle or trunk can become very high in a hot season. If you leave the camcorder in such a place, it could malfunction or the case could be damaged. Do not expose the camcorder to direct sunlight or place it near a heater.
- **Do not store the camcorder in a place where the humidity or dust level is high:**
  Dust entering the camcorder could cause malfunctions. If humidity is high, the lens could become mouldy, and the camcorder could become inoperative. It is recommended that you put the camcorder in a box together with a desiccant when storing it in a closet, etc.
- **Do not store the camcorder in a place subject to strong magnetism or intense vibrations:**
  This could cause malfunctions.
- **Detach the battery pack from the camcorder and store it in a cool place:**
  Leaving the battery pack attached or storing it at high temperature could shorten its life.

Cleaning the camcorder

✪ **Before cleaning, turn off the camcorder and remove the battery pack and AC power adaptor.**

- **To clean the exterior**
  - Wipe gently with a soft dry cloth. Do not apply excessive force when cleaning, gently rub the surface.
  - Do not use benzene or thinner to clean the camcorder. The coating of exterior could peel off or the case could deteriorate.
- **To clean the LCD monitor**
  Wipe gently with a soft dry cloth. Be careful not to damage the monitor.
- **To clean the lens**
  Use an optional air blower to blow out dirt and other small objects. Do not wipe the lens with cloth or your fingers. If necessary, wipe gently with lens cleaning paper.
  - Mould may form if the lens is left dirty.
  - If the lens looks dimmer, turn off the camcorder and leave it for about 1 hour.

ADDITIONAL INFORMATION

Storage media

- **Be sure to follow the guidelines below to prevent corruption or damage of your recorded data.**
  - Do not bend or drop the storage media, or subject it to strong pressure, jolts or vibrations.
  - Do not splash the storage media with water.
  - Do not use, replace, or store the storage media in locations that are exposed to strong static electricity or electrical noise.
  - Do not turn off the camcorder power or remove the battery or AC power adaptor during recording, playback, or when otherwise accessing the storage media.
  - Do not bring the storage media near objects that have a strong magnetic field or that emit strong electromagnetic waves.
  - Do not store the storage media in locations with high temperature or high humidity.
  - Do not touch the metal parts.
- **Copy the recorded files to your PC. Samsung shall not be responsible for any lost data. (It is recommended that you copy the data from your PC to other media for storage.)**
- **A malfunction may cause the storage media to fail to operate properly. Samsung will not provide any compensation for any lost contents.**
- **Refer to pages 30-34 for details.**

LCD screen

- **To prevent damage to the LCD screen**
  - Do not push it too hard or knock it on anything.
  - Do not place the camcorder with LCD screen facing down.
- **To prolong service life, avoid rubbing it with a coarse cloth.**
- **Be aware of the following phenomena for LCD screen use. They are not malfunctions.**
  - While using the camcorder, the surface around the LCD screen may heat up.
  - If you leave power on for a long time, the surface around the LCD screen becomes hot.

USING YOUR CAMCORDER ABROAD

- Each country or region has its own electric and colour systems.
- Before using your camcorder abroad, check the following items.

Power sources

The provided AC adaptor features automatic voltage selection in the AC range from 100 V to 240 V. You can use your camcorder using the AC power adaptor supplied in any countries/regions within the AC 100 V to 240 V, 50/60 Hz range. Use a commercially available AC plug adaptor, if necessary, depending on the design of the wall outlet.

TV colour systems

Your camcorder is a camcorder based on PAL system. If you want to view your recordings on a TV or to copy it to an external device, it must be an PAL-compatible TV or an external device having the appropriate Audio/Video jacks. Otherwise, you may need to use a separate video format transcoder (PAL-NTSC format converter).

The format transcoder is not provided by SAMSUNG.

PAL-compatible countries/regions

Australia, Austria, Belgium, Bulgaria, China, CIS, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Great Britain, Holland, Hong Kong, Hungary, India, Iran, Iraq, Kuwait, Libya, Malaysia, Mauritius, Norway, Romania, Saudi Arabia, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Syria, Thailand, Tunisia, etc.

NTSC-compatible countries/regions

Bahamas, Canada, Central America, Japan, Korea, Mexico, Philippines, Taiwan, United States of America, etc.

You can make recordings with your camcorder and view pictures on the LCD screen from anywhere in the world.

TROUBLESHOOTING

✪ **Before contacting a Samsung authorised service centre, perform the following simple checks. They may save you the time and expense of an unnecessary call.**

Warning indicators and messages

Power source

Message	Icon	Informs that...	Action
Low Battery	-	The battery pack is almost discharged.	• Change to a charged one or use the AC power adaptor. Charge the battery pack.
Check the authenticity of this battery	-	The battery pack can not pass authenticity check.	• Check whether the battery is authentic and change to new one. • It is recommended that only genuine Samsung batteries are used in this camcorder.

Storage media

Message	Icon	Informs that...	Action
Memory Full (SMX-C24 only)		There is not enough space to record on built-in memory.	• Delete unnecessary files on the built-in memory. Use a memory card. • Back-up files to your PC or another storage media and delete files.
Insert Card		There is no memory card inserted in the card slot.	• Insert a memory card.
Card Full		There is not enough space to record on memory card.	• Delete unnecessary files on the memory card. Use the built-in memory. (SMX-C24 only) • Back-up files to your PC or another storage media and delete files. • Change to another memory card which has enough free space.
Card Locked		The write protection tab on an SDHC card has been set to lock.	• Release write protection tab.
Card Error		The memory card has some problem and cannot be recognised.	• Format the memory card or replace it with a new one.

Message	Icon	Informs that...	Action
Not Supported Card		The memory card is not supported in this camcorder.	• Change to a memory card that we recommended.
Not Supported Format		The memory card may have been formatted by another device and may still have existing images on it.	• The image format is not supported. Check the supported file format. • Format the memory card using menu item.
Please format		The memory card is not formatted.	• Format the memory card using menu item.
Low speed card. Please record at a lower resolution.	-	The memory card does not have enough performance to record.	• Record video at a lower resolution. • Change memory card to a faster one. ➥page 31

Recording

Message	Icon	Informs that...	Action
Write Error	-	Some problems occurred while writing data to storage media.	• Format storage media using menus after backing-up important files to your PC or another storage media.
Release the Smart Auto	-	You cannot manually operate some functions when Smart Auto is activated.	• Release Smart Auto function.
Recovering Data… Don't power off and keep card inside.	-	The file was not created normally.	• Wait until data recovery is finished. • Never turn off the power or eject memory card during recording.
The number of video files is full. Cannot record video.	-	The number of video files that can be stored is 9,999 on 999th folder (999VIDEO).	• Delete unnecessary files on the memory card. • Back up files to your PC or another storage media and delete files. • Change with another card which has enough free space.
File number is full. Cannot record video.	-	Folder and file number have reached their limitation and you cannot record.	• Format storage media using menu item after backing up important files to PC or another storage device. Set **"File No."** to **"Reset."**
File number is full. Cannot take a photo.	-	Folder and files have reached their capacity and you cannot take a photo.	• Format storage media using menu item after backing up important files to PC or another storage device. Set **"File No."** to **"Reset."**
The number of photo files is full. Cannot take a photo.	-	The number of photo files that can be stored is 9,999.	• Delete unnecessary files on the memory card. • Back up files to your PC or another storage media and delete files. • Change with another card which has enough free space.

Playback

Message	Icon	Informs that...	Action
Total file size is over 1.8GB.	-	Total file size that can be combined is limited to 1.8GB.	• Combined files must be less than 1.8GB.
Select 2 files for combine.	-	You can not combine more than 2 different videos into one.	• It is possible to combine only 2 different videos into one.
Read Error	-	Some problems occurred during reading data from storage media.	• Format storage media using menus after backing up important files to PC or another storage device.
Corrupted file	-	This file can not be read.	• Format the storage media using menus after back up important files to a PC or another storage device.

When there is condensation, put aside for a while before using

- What is condensation?
  Condensation occurs when a camcorder is moved to a place where the temperature differs significantly from the previous place. In other words, the water vapour in the air turns into dew because of the temperature difference, and it condensates like dew on the external or internal lenses of the camcorder and on the reflection lens. When this happens, you temporarily may not use the record or play functions of the camcorder. Also, it may cause a malfunction or damage to the camcorder when using the device with the power on while there is condensation.
- What can I do?
  Turn the power off and detach the battery pack, and leave it in a dry area for 1~2 hours before using it.
- When does condensation occur?
  When the device is relocated to a place with a higher temperature than the previous location, or when using it in a hot area suddenly.
  - When recording outdoors in cold weather during the winter and then using it in indoors.
  - When recording outdoors in hot weather after being indoors or inside a car where the air conditioner was running.

Note before sending your camcorder for repair.

- If these instructions do not solve your problem, contact your nearest Samsung authorised service centre.
- Depending on the problem, the current hard disk may need to be initialised or replaced and the data will be deleted. Be sure to back up the data on the hard disk or other storage media before sending your camcorder for repair. Samsung cannot guarantee any loss of your data.

✪ **If you encounter any problems using your camcorder, check the followings before asking for service repair. If these instructions do not solve your problem, contact the nearest Samsung authorised service centre.**

Symptoms and solutions

Power

Symptom	Explanation/Solution
The camcorder does not turn on.	• The battery pack may not be inserted on your camcorder. Insert a battery pack into the camcorder. • The inserted battery pack may be discharged. Charge the battery pack or replace it with a charged one. • If you use an AC power adaptor, make sure it is properly connected to the wall outlet. • Remove the battery pack or unplug the AC power adaptor, and reconnect the power supply to the camcorder before turning it on.
The power automatically turns off.	• Is **"Auto Power Off"** set to **"5 Min"**? If no button is pressed for about 5 minutes, the camcorder is automatically turned off (**"Auto Power Off"**). To disable this option, change the setting of **"Auto Power Off"** to **"Off"** ➥page 81 • The battery pack is almost discharged. Charge the battery pack or replace it with a charged one. • Use the AC power adaptor.
Power cannot be turned off .	• Remove the battery pack or unplug the AC power adaptor, and reconnect the power supply to the camcorder before turning it on.
The battery pack is quickly discharged.	• The temperature in the use condition is too low. • The battery pack is not fully charged. Recharge the battery pack. • The battery pack reached the end of its lifespan and cannot be recharged. Use another battery pack.

Displays

Symptom	Explanation/Solution
The Recorded Image is more narrow or fat than original image.	• You should check the size for recording before you record. ➥page 46
Unknown image appears on the LCD screen.	• The camcorder is in Demo mode. If you do not want to see Demo images, change the setting of **"Demo"** to **"Off."** ➥page 83
Unknown indicator appears on the screen.	• A warning indicator or message appears on the screen. ➥pages 100~102
The after image remains on the LCD screen.	• This occurs if you disconnect the AC power adaptor or remove the battery pack before turning the power off.
The image on the LCD screen looks dark.	• Ambient is too bright. Adjust the brightness and angle of the LCD. • Use the LCD Enhancer function.

Storage Media

Symptom	Explanation/Solution
Memory card functions are not operable.	• Insert a memory card into your camcorder properly. ➥page 31 • If you use a memory card formatted on a computer, format it again directly on your camcorder. ➥page 73
Image cannot be deleted.	• You cannot delete the images protected by other devices. Release the protection of the image on the device. ➥page 61 • Release the lock on the write-protect tab of the memory card (SDHC memory card, etc.), if any. ➥page 32
You cannot format the memory card.	• Release the lock on the write-protect tab of the memory card (SDHC memory card, etc.), if any. ➥page 32 • Copy any important recorded files to your PC before formatting. Samsung shall not be responsible for any loss of data. (It is recommended that you copy the data to your PC or other storage media.)
The data file name is not indicated correctly.	• The file may be corrupted. • The file format is not supported by your camcorder. • Only the file name is displayed, if the directory structure does not comply with the international standard.

Recording

Symptom	Explanation/Solution
Pressing the **Recording start/stop** button does not start recording.	• There is not enough free space to record on the the storage media. • Check if memory card is not inserted or write-protect tab is set to lock. • The internal temperature of your camcorder is unusually high. Turn off your camcorder and leave it for a while in a cool place. • Your camcorder is damp and moist inside (condensation). Turn off your camcorder and leave it for about 1 hour in a cool place.
The actual recording time is less than the estimated time.	• The estimated recording time may vary depending on contents and features used. • Recording a fast-moving subject increases the bit rate and consequently the amount of storage space required for the recording, which can lead to a shorter available recording time.
The recording stops automatically.	• There is no more free space for recording on the storage media. Back up important files on your PC and format the storage media or delete the unnecessary files. • If you frequently record or delete files, the performance of the built-in flash memory will deteriorate. In this case, reformat the built-in memory. • If you use the memory card with low writing speed, the camcorder automatically stops recording the videos and the corresponding message appears on the LCD screen.

Recording

Symptom	Explanation/Solution
When recording a subject illuminated by bright light, vertical lines appear.	• The camcorder is unable to record these levels of brightness.
When the screen is exposed to direct sunlight during recording, the screen turns red or black for an instant.	• Do not leave the camcorder with the LCD screen exposed to direct sunlight.
The beep sound is not heard.	• Set the **"Beep Sound"** to **"On."** • The beep sound is temporally off while recording videos. • When the Audio/Video cable jack is connected to the camcorder, the beep sound will automatically turn off.
There is a time difference between the point where you press **Recording start/stop** button and the point where the recorded video starts/stops.	• On your camcorder, there may be a slight time delay between the point when you press **Recording start/stop** button and the actual point where the recorded video starts/stops. This is not an error.
The recording stops.	• The internal temperature of your camcorder is unusually high. Turn off your camcorder and leave it for a while in a cool place. • Your camcorder is damp and moist inside (condensation). Turn off your camcorder and leave it for about 1 hour in a cool place.
You cannot record a photo image.	• Set your camcorder to Record mode. ➥page 19 • Release the lock on the write-protection tab of the memory card if any. • The storage media is full. Use a new memory card or format the storage media. ➥page 73 Or remove unnecessary images. ➥page 60

Adjusting the image during recording

Symptom	Explanation/Solution
Focus does not adjust automatically.	• Set **"Focus"** to **"Auto."** ➥page 51 • The recording conditions are not suitable for auto focus. Adjust the focus manually. ➥page 51 • The lens is dusty on the surface. Clear the lens and check the focus. • Recording is being made in a dark place. Increase the brightness in the place.
The image appears too bright or flickering, or changes in colour.	• This occurs when recording images under a fluorescent lamp, sodium lamp, or mercury lamp. Cancel **"iSCENE"** to minimise these phenomena. ➥page 45

Playback on your camcorder

Symptom	Explanation/Solution
Using the playback (Play/Pause) button will not start playing.	• Press the **Mode** button to set Video Play mode. • Image files recorded by other devices may not be played on your camcorder. • Check out the memory card compatibility. ➥page 32
The Skip or Search function does not work properly.	• If the temperature inside the camcorder is too high, it cannot function properly. Turn the camcorder off, wait for a few moments, and turn it on again.
Playback is interrupted unexpectedly.	• Check the AC adaptor or battery pack is properly connected and stable.
You cannot hear the sound when playing video recorded by Time Lapse REC.	• The Time Lapse REC does not support the sound input. (mute recording) ➥page 56
Photos stored on a storage media are not displayed in the actual size.	• Photos recorded on other devices may not appear in the actual size. This is not an error.

Playback on other devices (TV, etc.)

Symptom	Explanation/Solution
You cannot view the image or hear the sound on the connected device.	• Connect the audio line of the Audio/Video cable jack to your camcorder or to the connected device (TV, DVD recorder, etc). (Red colour- right, White colour- left) • The Audio/Video cable jack is not connected properly. Make sure that the Audio/Video cable jack is connected to the proper jack. ➥page 94, 96

Connecting/Dubbing with other devices (TV, DVD recorder, etc.)

Symptom	Explanation/Solution
You cannot dub correctly using the Audio/Video cable.	• The Audio/Video cable is not connected properly. Make sure that the Audio/Video cable is connected to the proper jack, i.e. to the input jack of the device used for dubbing an image from your camcorder. ➥page 94, 96

Connecting to a computer

Symptom	Explanation/Solution
When using the videos, a computer does not recognise your camcorder.	• Disconnect the USB cable from the computer and camcorder, restart the computer, then reconnect it correctly.
Cannot play a video clips properly on a PC.	• A video codec is needed to play the file recorded on your camcorder. Install or run the built-in edit software (Intelli-studio). • Make sure you insert the connector in the correct direction, and connect the USB cable to the USB jack on your camcorder firmly. • Disconnect the cable from the computer and camcorder, restart the computer. Reconnect it properly. • Your computer may not have the required performance to playback a video file. Check the recommended computer specifications.
Intelli-studio does not function properly.	• Exit the Intelli-studio application, and restart the Windows computer. • The built-in software on your camcorder, Intelli-studio, is not Macintosh-compliant. • Set **"PC Software"** to **"On"** in the Settings menu. • According to your computer type, the Intelli-studio program may not run automatically. If this occurs, open My Computer, find and then open CD Drive Intelli-studio. In CD Drive Intelli-studio, run Intelli-Studio.exe.
The image or sound on your camcorder is not played on your computer properly.	• Video playback or sound may stop temporarily depending on your computer. The video or sound copied to your computer is not affected. • If your camcorder is connected to a computer that does not support Hi-speed USB (USB2.0), the images or sound may not be played back correctly. The images and sound is copied to your computer is not affected.
The playback screen is paused or distorted.	• Check the system requirements to play a video. ➥page 85 • Exit all other applications running on the current computer. • If a recorded video is played on your camcorder connected to a computer, the image may not play smoothly, depending on the transfer speed. Please copy the file to your PC, and then play it back.

General operations

Symptom	Explanation/Solution
The date and time are incorrect.	• Has the camcorder been left unused for a long period of time? The backup built-in rechargeable battery may be discharged. ➥page 28
Pressing a button will not turn on or operate the computer.	• Remove the battery pack or unplug the AC power adaptor, and reconnect the power supply to the camcorder before turning it on.
Does not charge or operate even if the battery pack is inserted.	• Check whether the battery pack is genuine. Non-genuine battery packs are not recognised properly by the camcorder.

Menu

<table>
<tr><th>Symptom</th><th>Explanation/Solution</th></tr>
<tr><td>Menu items are dimmed.</td><td>

You cannot select the dimmed menu items in the current recording/playback mode.
Most of the menu items cannot be selected when you set the Smart Auto function.
If there is no storage media inserted, it cannot be selected and will be dimmed on the menu : "Storage Type", "Storage Info", "Format", etc.
There are some functions you cannot activate simultaneously.
The following list shows examples of unworkable combinations of functions and menu items. If you want to set the desired functions, do not set the following items first.

<table>
<tr><th><Cannot Use></th><th><Because of the following setting></th></tr>
<tr><td>"Digital Zoom"</td><td>"Anti-Shake (HDIS)",
"iSCENE: Night, Darkness"
"Digital Effect : Mirror, Mosaic, Step printing",
"Video Resolution: Web Fine, Web Normal"</td></tr>
<tr><td>"Digital Effect : Mirror, Mosaic, Step printing"</td><td>"Anti-Shake (HDIS)", "16:9 Wide"</td></tr>
<tr><td>"Digital Effect"</td><td>"iSCENE: Night, Darkness"</td></tr>
<tr><td>"Focus : Face Detection"</td><td>"iSCENE", "Digital Effect",
"Video Resolution: Web Fine, Web Normal"</td></tr>
<tr><td>"Back Light"</td><td>"iSCENE: Night, Darkness"</td></tr>
<tr><td>"Fader"</td><td>"Time Lapse REC"</td></tr>
<tr><td>"Smart Auto"</td><td>"Video Resolution: Web Fine, Web Normal"</td></tr>
<tr><td>"16:9 Wide"</td><td>"Video Resolution: Web Fine, Web Normal"</td></tr>
<tr><td>"Anti-Shake (HDIS)"</td><td>"Video Resolution: Web Fine, Web Normal",
"iSCENE: Night, Darkness"</td></tr>
<tr><td>"iSCENE: Night, Darkness"</td><td>"Anti-Shake (HDIS)", "Digital Effect"</td></tr>
</table>

The following list shows examples of some functions you cannot activate when the camcorder is in a specific mode. If you want to set the desired function, change the mode first.

<table>
<tr><th><Cannot Use></th><th><If the camcorder is in the following mode:></th></tr>
<tr><td>"LCD Brightness",
"LCD Colour", "Demo"
"Transparency",</td><td>"Play mode": Thumbnail index screen or full image display mode of videos (or photos).</td></tr>
<tr><td>"TV Display"</td><td>"Play mode": Thumbnail index screen mode of videos (or photos).</td></tr>
<tr><td>"Storage Type",
"Auto LCD Off",
"Default Set"</td><td>"Play mode": Full image display mode of videos (or photos).</td></tr>
<tr><td>"Beep Sound"</td><td>"Play mode": Full image display mode of videos.</td></tr>
</table>
</td></tr>
</table>

specifications

Model name	SMX-C20BP/SMX-C20RP/SMX-C20LP/SMX-C20UP SMX-C24BP/SMX-C24RP/SMX-C24LP/SMX-C24UP SMX-C200BP/SMX-C200RP/SMX-C200LP/SMX-C200UP

System	Video signal	PAL
	Picture compression format	H.264/AVC Format
	Audio compression format	AAC (Advanced Audio Coding)
	Recording resolution	TV Super Fine (about 5.0Mbps), TV Fine (about 4.0Mbps), TV Normal (about 3.0Mbps), Web Fine (about 4.0Mbps), Web Normal (about 3.0Mbps)
	Image device	CCD (Charge Coupled Device) (Max : 800K pixels)
	Lens	F1.8 to 2.4, 10x (Optical), 1200x (Digital) Electronic zoom lens
	Focal length	2.4mm~24mm
LCD screen	Size/dot number	2.7 inches wide, 230k
	LCD screen method	1.6" interlaced scan, LCD panel / TFT active matrix system
Connectors	Composite video out	1.0V (p_p), 75Ω, analogue
	Audio output	-7.5dBm 47KΩ, analogue, stereo
	USB output	mini USB-B type (USB2.0 High Speed)
General	Power source	5.0V (Using AC adaptor), 3.7V (Using Lithium Ion battery pack)
	Power source type	Power supply (100V~240V) 50/60Hz, Lithium Ion battery pack
	Power consumption	1.8W (LCD on)
	Operating temperature	0℃~40℃ (32℉~104℉)
	Operating humidity	10% ~80%
	Storage temperature	-20℃ ~ 60℃ (-4℉ ~ 140℉)
	Dimensions (W x H x D)	Approx. 35.2mm x 56.2mm x 109mm (1.39" x 2.21" x 4.29")
	Weight	Approx. 0.32lbs (145g) (Except for battery pack or memory card)
	Internal MIC	Omni-directional stereo microphone

※ These technical specifications and design may be changed without notice.

contact SAMSUNG world wide

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care centre.

Region	Country	Contact Centre ☎	Web Site
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	U.S.A	1-800-SAMSUNG(726-7864)	www.samsung.com/us
Latin America	ARGENTINE	0800-333-3733	www.samsung.com/ar
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RoHS compliant

Our product complies with “The Restriction Of the use of certain Hazardous Substances in electrical and electronic equipment”, and we do not use the 6 hazardous materials- Cadmium(Cd), Lead (Pb), Mercury (Hg), Hexavalent Chromium (Cr +6), Poly Brominated Biphenyls (PBBs), Poly Brominated Diphenyl Ethers(PBDEs)- in our products.